

Chapter 1 - Introduction

Survey Methodology

Sample

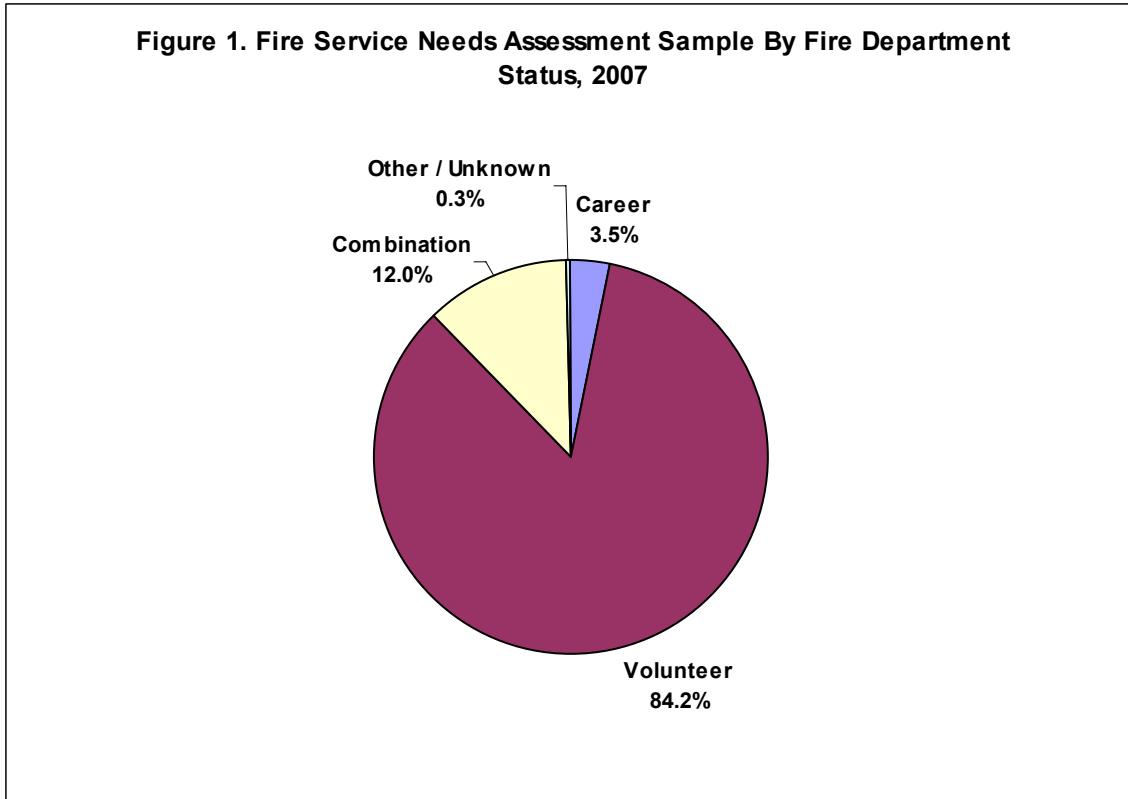
All municipal fire departments in Virginia that are eligible to receive Aid-to-Localities (ATL) Funding were selected for the survey and were invited to participate in the 2007 Fire Service Needs Assessment Survey. The sample population was based on the different needs of fire service at the career local government level and at the volunteer fire department level. The goal was to ensure that all types of fire departments were represented. Industrial Fire Brigades, Airport Fire Departments, and Military Fire Departments were not included since they do not receive any state funding for their fire service.

A total of 634 fire departments made up the survey sample of eligible participants. A majority of the fire departments (84.2%) were classified as Volunteer Departments, 12 percent were Combination Departments, and 3.5 percent were Career Departments. (See Table 3 and Figure 1.) Primary fire departments are the main fire departments that provide fire service response in an area and may include additional fire stations. Fire administration units are local government level fire service organizations that are normally made up of career fire service employees only.

Table 3. Fire Service Needs Assessment Sample Population, 2007

Fire Department Type	Career	Volunteer	Combination	Other / Unknown	Grand Total
Primary Fire Department	17	518	66	0	601
Fire Administration Unit	5	16	10	2	33
Grand Total	22	534	76	2	634

Prior to the startup of data collection for the survey, letters were mailed to each fire department asking them to either verify or update their contact information. A contact information update form was included in the mailout for departments to complete and either mail or fax back to VDFP. Information such as Addresses, Phone/Fax Numbers, Email Addresses, and Current Fire Chief's Name were updated to verify that the most up-to-date contact information was being used for the Needs Assessment Survey. All information was updated in the Fire Service Training Records System (FSTRS) and the fire department's information was exported from the database for use with the survey sample collection.



Survey Design

The survey questions were designed to accurately measure the overall needs of Virginia's Fire Service. The questions were also drafted clearly and accurately, therefore, providing easy-to-understand questions for respondents. Every effort was made to ensure the collection of reliable survey data as well as to provide a survey questionnaire that is simple to complete and less time intensive.

The questionnaire was adapted from the instrument used by the United States Fire Administration (USFA) and the National Fire Protection Agency (NFPA) in *A Needs Assessment of the U.S. Fire Service*, a national study of fire service needs.

The 2007 Needs Assessment Survey contained the following sections that contained questions that captured detailed information from fire departments.

Section I - Identifying Contact Information

Section II - General Department Information

Section III - Department Personnel

Section IV - Facilities & Apparatus

Section V - Operating Budget Information

Section VI - Communications

Section VII - Fire Department Roles / Training

Section VIII - Fire Prevention & Code Enforcement

Section IX - Unusually Challenging Incidents

Section X - Your Fire Department's Top Needs

Final Comments

The actual survey questions used with the 2007 Needs Assessment can be found in Appendix III.

Data Collection

The survey was collected on-line using the survey collection website, <http://www.keysurvey.com/>. Fire departments could access the survey from a link on the main page of the VDFP website, www.vafire.com, or from links placed directly in email correspondence.

Each fire department was issued a unique survey password that allowed them to logon to the survey. The password contained four random letters and four random numbers and provided added security to the collection of our survey. Fire departments were only allowed to complete the survey once. If they attempted to logon again, the survey website would display a message stating that the department has already completed the survey. The password additionally allowed survey respondents to save and close their survey and return later to finish completing their response.

Upon logging onto the survey website, fire departments information such as FDID, Fire Department Name, Addresses, Phone Number, and Chief's Name were automatically pre-filled based on current information stored in the Fire Service Training Records System (FSTRS). Respondents were able to make corrections to the contact information as needed.

Survey Procedures/Mailouts

The collection of responses from fire departments with the needs assessment started on September 24, 2007. Fire departments with known email addresses (253) were sent an email message inviting them to participate in the survey. All fire departments (634) were mailed a letter similarly inviting them to participate. The emails contained a link to the survey website

and the fire department's unique survey password. The letters contained the survey password and referred them to a link on the main page of the VDFP agency website. Fire departments were given a deadline of October 19, 2007 to submit their completed responses.

On October 3, 2007, a letter was sent to all localities in Virginia (Counties, Cities, and Towns) promoting the importance of the needs assessment. The letter asked localities to encourage participation with their local fire departments.

Reminder emails and postcards were sent out on October 12, 2007, one week before the survey deadline, to non-respondent fire departments reminding them about the approaching deadline.

The total response rate after the survey deadline on October 19, 2007 was 48%. The survey collection deadline was extended until November 26, 2007 so that fire departments could still complete survey responses and be included in the final report. On October 26, 2007, an email message was sent to the remaining non-respondent fire departments (76) stating that VDFP had not received their response and that the survey collection had been extended. Non-respondents (321) were also mailed a letter with a similar message on October 26, 2007.

A second mailout to county and city administrators was mailed on November 8, 2007 and included a custom attached survey participation report for their area. On November 19, 2007, a blank copy of the survey was mailed to the remaining non-respondent fire departments (184) providing another format to submit information for departments that may not have internet access.

<u>Survey Tasks</u>	<u>Date</u>
1st Letter Mailed/Email Sent	09/24/2007
Survey Collection Deadline	10/19/2007
2nd Letter Mailed/Email Sent	10/26/2007
Survey Collection Deadline	11/26/2007
Final Collection Closeout	12/03/2007

Final Survey Response

The final survey response after the collection closeout on December 3, 2007 was 80 percent. Adjusting for combined responses from local government that reported for the entire locality, the final adjusted survey response was 89 percent. Detailed survey participation reports are located in Appendix IV and Appendix V.

Collaborative Effort

Survey response for the 2007 Needs Assessment Survey was supported by the efforts of local government in Virginia. Local government promoted participation which helped greatly

with the final data. Managers and Instructors with the Virginia Department of Fire Programs also promoted the completion of the survey with fire departments in Virginia. Survey participation with fire departments was documented and posted on our agency website to help monitor and track survey progress.

Other Data Sources

Virginia Fire Incident Reporting System (VFIRS) Data - Data from the Virginia Fire Incident Reporting System (VFIRS) was used to provide detailed information about the incident calls from Virginia's fire service.

Budget Data - Data from the Virginia Aid-to-Localities (ATL) Program was used to show the level of funding provided by the Commonwealth via the Fire Programs Fund (a special revenue fund) to Virginia's localities to support their municipal fire departments. Information about the Assistance to Firefighter's Grant (AFG) Program was used to identify additional funding sources to fire departments.

Training Data - Data from the Fire Service Training Records System (FSTRS) was used to provide information on training courses supported by VDFP.

Limitations

Like most research of this nature, this Needs Assessment had several limitations.

Survey Response Rate

The final response rate for the Needs Assessment Survey was 89 percent. As with all such surveys, caution must be exercised when generalizing the results of this survey to individual fire departments. Because information was entered by fire chiefs or department personnel, the possibility of human error must be considered in interpreting all results.

Organizational Structure of Virginia's Fire Service

Duplication of data among responding fire administration units and their local volunteer fire departments were identified during survey collection. This duplication may misrepresent the final statistical data. To clarify the results, fire administration units that responded to the survey were contacted and the mode of their survey reporting was documented. Fire administration units either reported for the entire county for both career and volunteer personnel or for career personnel only. In order to produce more reliable statistics, fire departments that are located in the same locality as an administration unit that reported for the entire area were omitted from

some of the data calculations. If there was any potential for duplicate data, then the statistics were adjusted and changes noted on any tables and charts. Every effort was made to ensure that data was presented accurately in this report.

Please see the following table on how local governments with fire administration personnel reported.

Table 4. Fire Administration Units By Reporting Type

FDID	Fire Department	Reporting Type
00100	Accomack Co. Dept of Public Safety	Both Career/Volunteer
00300	Albemarle Co. Fire Admin.	Both Career/Volunteer
00900	Amherst County Department of Public Safety	Career Only
01500	Augusta Co. Fire & Rescue Training Center	Both Career/Volunteer
01900	Bedford County Department of Fire & Rescue	Both Career/Volunteer
02300	Botetourt County Emergency Services	Career Only
03199	Campbell Co. Dept. of Public Safety	Career Only
03300	Caroline Co. Fire & Rescue	Career Only
05300	Dinwiddie Co. Public Safety	Both Career/Volunteer
06100	Fauquier Co. Ofc. of Emerg. Svcs.	Both Career/Volunteer
06500	Fluvanna Co. VFD Administration	Both Career/Volunteer
06700	Franklin Co. Emergency Services	Both Career/Volunteer
06900	Frederick Co. Fire & Rescue Dept.	Both Career/Volunteer
08500	Hanover Co. Fire Admin.	Both Career/Volunteer
08900	Henry Co. Dept. of Public Safety	Career Only
09399	Isle of Wight County, DES	Both Career/Volunteer
10700	Loudoun Co. Fire/Resc. EMS	Both Career/Volunteer
10900	Louisa Co. Office of Emer. Serv.	Career Only
12700	New Kent Fire - Rescue	Career Only
13700	Orange Co. Fire and EMS	Career Only
13900	Page County Fire & EMS	Career Only
14100	Patrick County Department of Emergency Management	Both Career/Volunteer
14500	Powhatan Co. Fire Admin.	Both Career/Volunteer
14900	Prince George Co. Fire Dept.	Both Career/Volunteer
15500	Pulaski Co. Emergency Serv.	Career Only
16100	Roanoke County Fire & Rescue	Both Career/Volunteer
16500	Rockingham Co. Dept. of Fire & Rescue	Both Career/Volunteer
17100	Shenandoah Co. Dept. of Fire & Rescue	Both Career/Volunteer
17700	Spotsylvania Co. Fire Admin.	Both Career/Volunteer
17900	Stafford Co. Dept. of Fire / Rescue & Emerg. Serv.	Both Career/Volunteer
18700	Warren Co. Fire & Rescue Services	Both Career/Volunteer
80000	Suffolk Fire & Rescue Dept.	Career Only

VFIRS Response Rate

Participation in the Virginia Fire Incident Reporting System (VFIRS) is not mandatory, which somewhat limits the generalizability of this data.

Local Use

This report was designed so that individuals and organizations could look up information for specific localities and areas in Virginia. Data was shown using five different regions (Central, Coastal, Northern, Mountain, Valley) in Virginia. Please refer to the reference found in Appendix I for more information on the designated regions.

Average

When calculating the average in this document, the arithmetic mean was used.