

Small, Mid-size and Large Companies, 2001 and 2012

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The Center for Rural Pennsylvania
 625 Forster St., Room 902
 Harrisburg, PA 17120
 Phone: (717) 787-9555
 www.rural.palegislature.us
 1P0313 – 500

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In 2012, the Center for Rural Pennsylvania and the Pennsylvania Fire and Emergency Services Institute (PFESI) conducted a mail survey of Pennsylvania fire chiefs to identify firefighter recruitment and retention patterns and measure the capacity of fire companies to meet their communities' emergency needs.

This report is the third in a series that shares the survey results. The first report focused on recruitment and retention issues, and the second report examined fire company capacity. This report looks at the differences and similarities of fire companies based on the size of the companies.

All reports compared the 2012 results with the results of a similar survey of fire chiefs conducted in 2001 by the Center and PFESI.

According to the 2012 survey results:

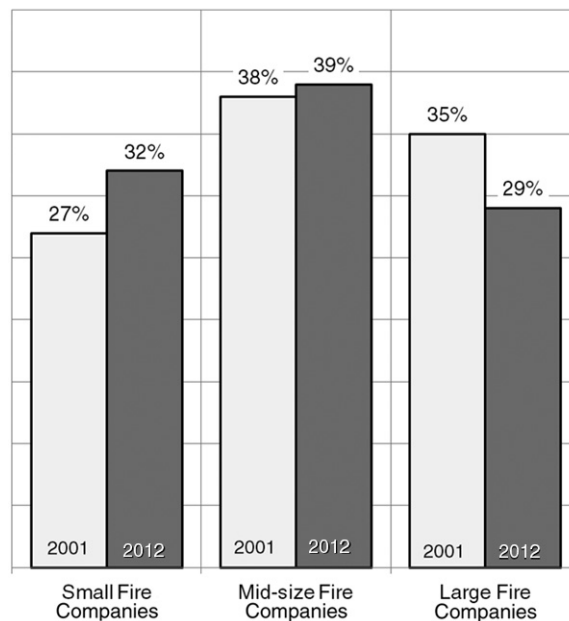
- Small companies had a net loss of firefighters while large companies had a net gain;
- A higher percentage of small companies were unable to respond to all calls compared to large companies; and
- Company size had little to no impact on whether a company discussed consolidation or merger with other companies over the past 2 years.

Findings

Size of Fire Companies

From 2001 to 2012, the percentage of large fire companies decreased and the percentage of small companies increased. Large companies

Company Size by Number of Firefighters Who Regularly Respond to Calls, 2001 and 2012



Survey Objectives and Methods

Objectives

The Center for Rural Pennsylvania and the Pennsylvania Fire and Emergency Services Institute conducted two statewide surveys of fire chiefs in the spring of 2001 and 2012. With a few exceptions, the questions in both surveys were identical.

The objectives of both surveys were to identify patterns in recruitment and retention of firefighters across Pennsylvania and to measure the capacity of fire companies to meet their communities' emergency needs. This report focuses on the differences and similarities of fire companies based on the number of firefighters who regularly respond to calls.

The 2001 survey results and the 2012 survey results focusing on recruitment and retention and fire company capacity are available on the Center's website at www.rural.palegislature.us/documents/factsheets.

Methods

The 2001 and 2012 surveys were mailed to all Pennsylvania fire company chiefs in both paid and volunteer fire companies.

In 2001, the sample population for the survey was 2,462 fire companies. From the sample population, 883 usable surveys were returned, for a response rate of 36 percent. The margin of error was 2.6 percent at the 95 percent confidence level.

In 2012, the sample population was 2,290 fire companies. Out of the sample population, 601 usable surveys were returned, for a response rate of 26 percent. The margin of error was 3.4 percent at the 95 percent confidence level.

For the analysis, the Center defined small, mid-size, and large fire companies based on the number of firefighters who regularly respond to calls. Small fire companies had one to 10 firefighters; mid-size companies had 11 to 19 firefighters; and large companies had 20 or more firefighters.

Data limitations

Under-representation of paid fire companies: While the survey was sent to all fire companies, paid fire companies may be under-represented in the results since the majority of Pennsylvania fire companies (93 percent) are made up of volunteers (Governor's Center for Local Government Services).

Different definitions of fire company member and active fire company member: In field testing the

survey in 2001, some chiefs considered all members to be active, while others considered only those who regularly respond to calls as active. To avoid confusion, the Center included definitions in the 2001 and 2012 surveys and added three separate questions on membership. The first asked for the total number of members; the second asked for the total number of "active members"; and the third asked for the total number of members who regularly respond to calls. Despite the questions and definitions provided, the results indicate that some respondents did not make the distinction between active members and members. Therefore, unless otherwise noted, this analysis profiles members who regularly respond to calls.

2001 and 2012 survey responses are only comparable at the aggregate level: The responses to both surveys were anonymous, so individual responses from fire companies in 2001 could not be compared with individual responses in 2012. Responses were, therefore, compared in aggregate.

A chief's opinion may be different from rank-and-file members: In many ways, the position of fire chief is one of management. His or her views and opinions may differ from those who actually join or leave.

Recoding/calculating variables

Rural/urban: The Center classified fire companies as rural or urban based on the county in which they were located. Rural fire companies were in counties where the population density was below the statewide average of 284 persons per square mile. Urban fire companies were located in counties where the population density was at or above the statewide density.

Net change in firefighters: The Center calculated the net change in firefighters by subtracting the number of new members who joined the company in the past 2 years from the number of those who left the company or became inactive during the same period. In both the 2001 and 2012 surveys, questions that were left blank on membership, age cohorts, fundraising events, the number of female members, fire calls, new members, and members who left were interpreted to mean "none" and were therefore coded as zero.

This analysis focuses on firefighters who regularly respond to calls. In the analysis, the terms "firefighter" and "member" are synonymous.

decreased from 35 percent in 2001 to 29 percent in 2012. From 2001 to 2012, the percentage of small companies increased from 27 percent to 32 percent, and the percentage of mid-size companies increased slightly from 38 percent to 39 percent.

Location of Fire Companies

In 2012, 56 percent of small companies were located in rural counties and 44 percent were located in urban counties. Sixty-three percent of large companies were located in urban counties and 37 percent were located in rural counties. Mid-size companies were nearly evenly split between rural (48 percent) and urban (52 percent) counties.

Location of Fire Companies by the Number of Firefighters Who Regularly Respond to Calls, 2012

	Small Fire Companies (<11 Firefighters)	Mid-size Fire Companies (11 to 19 Firefighters)	Large Fire Companies (20+ Firefighters)
Rural Counties	56%	48%	37%
Urban Counties	44%	52%	63%
Total	100%	100%	100%

Budgets and Fundraising

Not surprisingly, company size and budgets were closely related.

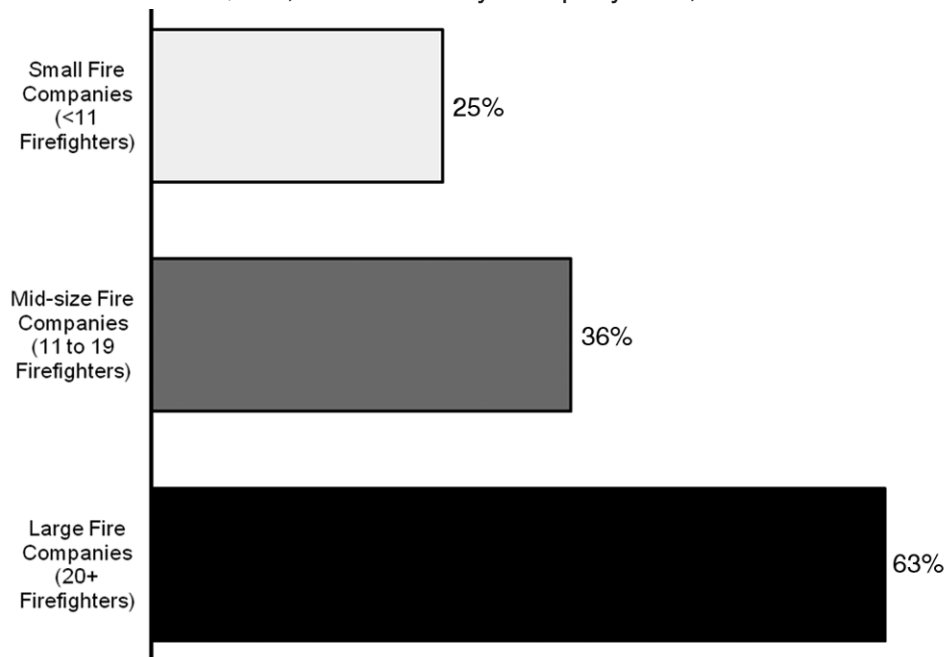
The majority (75 percent) of small companies had operating budgets under \$100,000, while the majority of large companies (63 percent) had budgets over \$100,000.

Mid-size companies were more mixed, with 64 percent having budgets under \$100,000 and 36 percent having budgets over this amount.

Despite the differences in budgets, there was no significant difference in the number of fundraising events companies held.

For example, small companies had 17.7 events, on average, per year; mid-size companies had 15.7 events, on average, and large companies had 19.2 events, on average per year.

Fire Companies with Operating Budgets of \$100,000 or More by Company Size, 2012



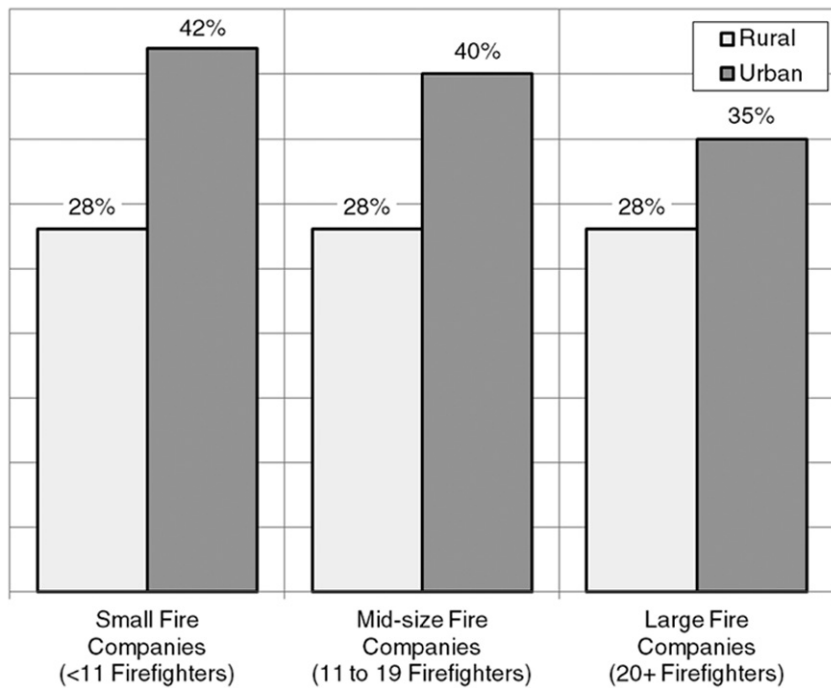
Consolidation/Merger Discussions

In 2012, small, mid-size and large companies were equally likely to have discussed consolidation or merger over the past 2 years.

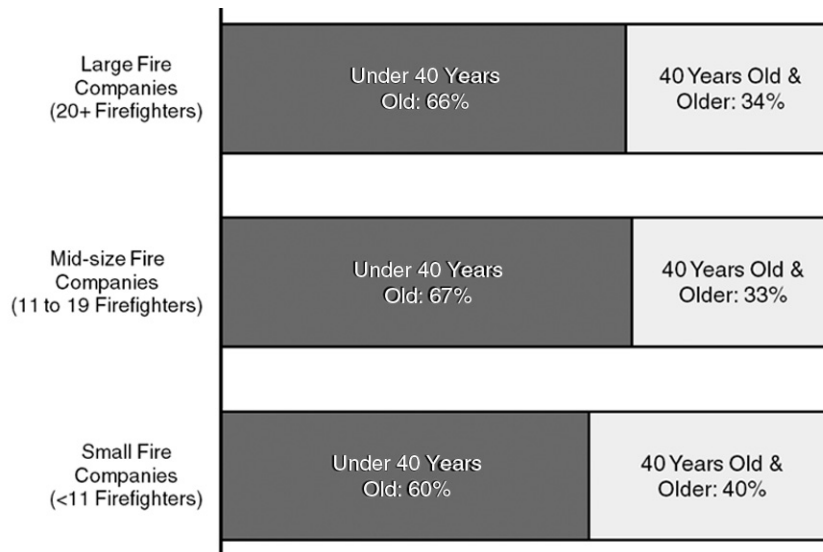
However, small companies located in urban counties were more likely to have had such a discussion (42 percent) than small companies located in rural counties (28 percent).

There was a similar pattern for mid-size and large companies located in urban counties. These companies were more likely to have discussed consolidation or merger than similar sized companies in rural counties.

Percent of Companies that Have Discussed Consolidation or Merger Over the Past 2 Years, by Rural and Urban, 2012



Age of Firefighters by Company Size, 2012



Age of Firefighters

In general, small companies had a higher percentage of older members than large companies.

In 2012, 40 percent of firefighters in small companies were 40 years old and older.

In mid-size companies, older firefighters made up 33 percent of all firefighters.

In large companies, older firefighters comprised 34 percent of the total.

Female Firefighters

As a percent of all firefighters, there are more females in small companies than in mid-size and large companies. In 2012, 25 percent of firefighters in small companies were female. In mid-size companies, 17 percent of firefighters were female, and in large companies, 10 percent were female.

From 2001 to 2012, small and mid-size companies had an increase in female firefighters, on average, while large companies had a decline.

Average Number of Female Firefighters by Company Size, 2001 and 2012

Company Size	2001	2012
Small Companies (<11 Firefighters)	1.7	2.1
Mid-size Companies (11-19 Firefighters)	2.4	2.5
Large Companies (20+ Firefighters)	3.5	3.0

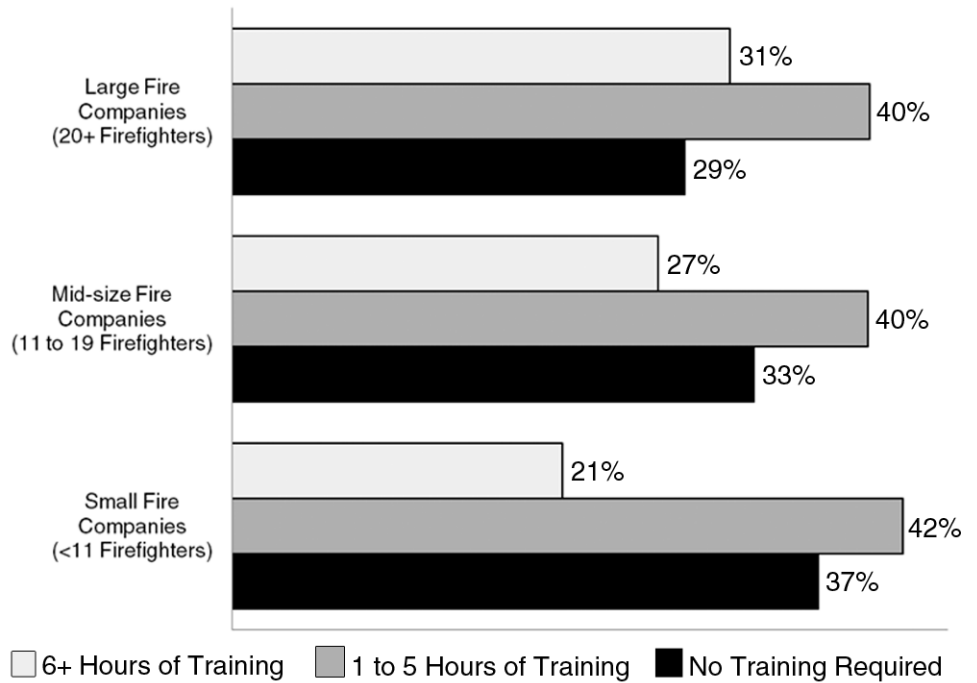
Training Requirements

In 2012, more than 82 percent of small, mid-size, and large companies required firefighters to have training to become a firefighter.

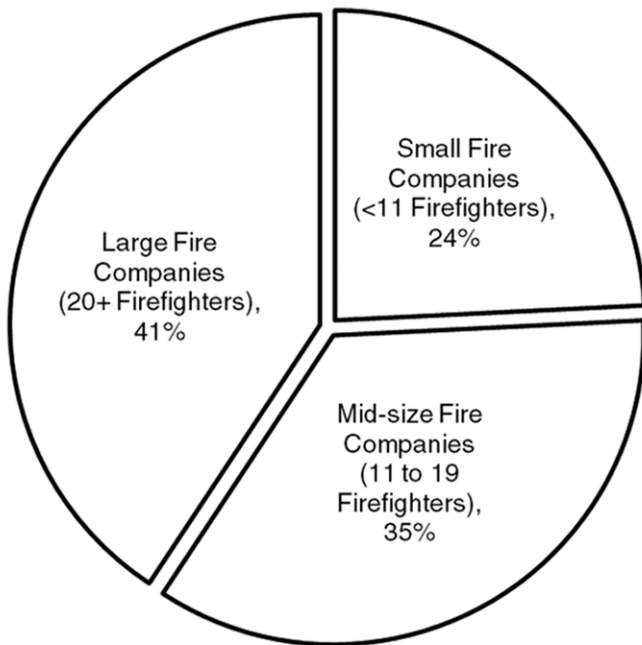
However, there were slight differences among the three types of companies for firefighters to remain in the company.

Sixty-three percent of small companies required monthly training compared to 67 percent of mid-size companies and 71 percent of large companies.

Number of Hours of Monthly Training Required to Remain a Firefighter by Company Size, 2012



Percentage of Total Number of Fire Calls to Which Companies Responded by Company Size, 2012



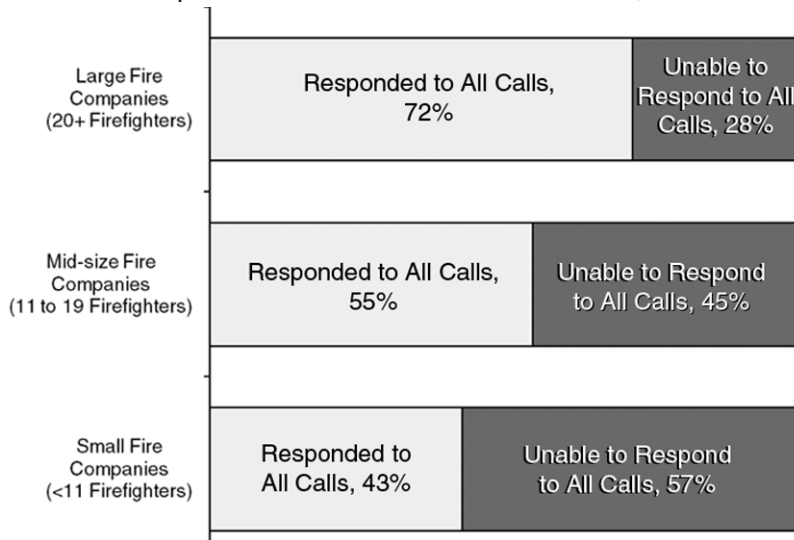
Fire Calls

Fire calls and company size were closely related.

In 2012, small companies responded to an average of 424 calls, while mid-size companies responded to an average of 515 calls, and large companies responded to an average of 758 calls.

Fifty-nine percent of mid-size companies said the number of calls they responded to increased over the past 2 years. Forty-eight percent of large companies said the number of calls increased and 50 percent of small companies said the number of calls increased.

Percent of Companies Able and Unable to Respond to Calls Over the Past 2 Years, 2012



Ability to Respond to Calls

Company size was related to the company's ability to respond to all calls.

Small companies had the most difficulty responding to calls, with 57 percent saying that there were calls to which they were unable to respond over the past 2 years.

Forty-five percent of mid-size companies said they were unable to respond to calls and 28 percent of large companies said they were unable to respond to calls over the past 2 years.

Reasons for Non-Response

Among all companies, the top reason for not responding to calls was insufficient crew (79 percent). Among small companies, 84 percent said they were unable to respond to calls because of insufficient crew in 2001; in 2012, however, that percentage dropped to 80 percent. There was a similar drop for large companies, but for mid-size companies, there was a 3 percentage point increase.

Reasons Why Companies Were Unable to Respond to Calls, 2001 and 2012

	Insufficient Crew		No Driver		Apparatus/Equipment Out-of-Service		Other Reasons	
	2001	2012	2001	2012	2001	2012	2001	2012
Small Companies (<11 Firefighters)	84%	80%	57%	47%	12%	4%	8%	9%
Mid-size Companies (11-19 Firefighters)	78%	81%	55%	54%	11%	6%	5%	8%
Large Companies (20+ Firefighters)	76%	73%	66%	50%	10%	4%	7%	13%

Firefighter Recruitment

The larger the company the more members it recruited.

In 2012, large companies gained an average of 8.3 new firefighters, mid-size companies gained 5.4, and small companies gained 3.9 new firefighters, on average.

The top two recruitment methods used by all fire companies were word of mouth (89 percent) and family and friends (71 percent).

Average Number of New Firefighters by Company Size, 2001 and 2012

	2001	2012
Small Companies (<11 Firefighters)	4.5	3.9
Mid-size Companies (11-19 Firefighters)	6.2	5.4
Large Companies (20+ Firefighters)	9.5	8.3

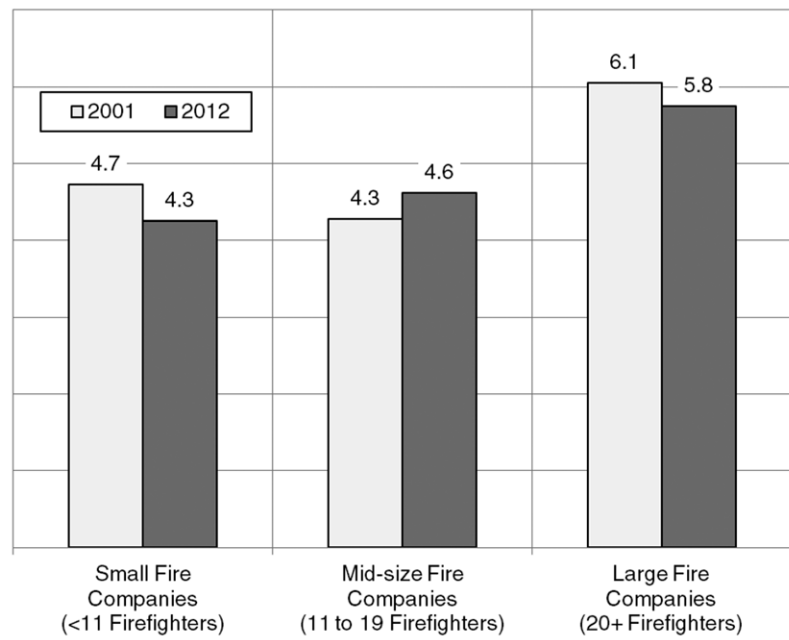
Firefighter Retention

While large companies recruited more firefighters, they also lost more firefighters.

In 2012, large companies had an average of 5.8 firefighters leave or become inactive. Mid-size companies had an average of 4.6 firefighters leave and small companies had 4.3 firefighters leave.

For all companies, the top two reasons why firefighters left, according to the fire chiefs, were moving away (58 percent) and job commitments (52 percent).

Average Number of Firefighters Who Left their Company or Became Inactive Over the Past 2 Years, 2001 and 2012



Net Change in Firefighters

Subtracting the number of firefighters who joined the company from those who left or became inactive during the same period produces the net change. Small companies had a negative net change (-0.4) in the number of firefighters, while mid-size companies and large companies had a positive net change (0.8 and 2.6, respectively) in the number of firefighters.

Net Change in Firefighters by Company Size, 2012

	Small Fire Companies (<11 Firefighters)	Mid-size Fire Companies (11 to 19 Firefighters)	Large Fire Companies (20+ Firefighters)
Net Decrease in Firefighters	46%	35%	26%
No Net Change in Firefighters	14%	12%	9%
Net Increase of 1 to 4 Firefighters	33%	37%	34%
Net Increase of 5+ Firefighters	7%	16%	31%
Avg. Net Change in Firefighters	-0.4	0.8	2.6

Analysis

Percentage of small companies increases

Comparing the 2001 survey results to the 2012 survey results shows a decline in the percentage of large companies and an increase in the percentage of small companies. While there were no data from the survey to indicate the reasons for this shift in company size, it is important to note that, if this trend continues, it could

have important implications for fire and emergency services. Small companies generally have smaller budgets and fewer firefighters, so they may have fewer resources to meet community needs.

No difference in number of fundraising events

One of the surprising results of the survey was the similarities in the number of fundraising events among

both small and large companies. This finding could suggest that all companies, regardless of size, are facing revenue challenges and are caught on a fundraising treadmill to meet budgetary needs.

Merger discussion not related to company size

Another surprising result was the similarity in the percentages of companies that discussed consolidation or merger. Small companies were just as likely to discuss merger as large companies. This finding suggests that there are factors other than size that are influencing companies to talk about merger.

Small companies have more difficulties responding to calls than large companies

Fifty-seven percent of small companies were unable to respond to calls during the past 2 years compared to 45 percent of mid-size companies and 28 percent of large companies. One-half of fire chiefs representing small companies said that the number of calls have increased over the past 2 years. Interestingly, however, the reasons why small companies are unable to respond to all calls is nearly identical to that of mid-size and large companies: insufficient crew and no drivers.

Large companies are more successful in recruiting and retaining members

In general, large companies had a net gain of nearly three new firefighters while mid-size companies had a net gain of about one firefighter and small companies had a net loss. For the long-term sustainability of fire companies, it is important that they recruit and retain members. The survey results suggest that large companies are better able to do so than small and mid-size companies.

Little difference in recruitment methods

Regardless of company size, the top methods for recruiting new members were word-of-mouth and family and friends. This finding suggests that recruiting is a personal and informal process. For small companies, the data suggest that recruiting is aimed at both genders, while for large companies, it is more male focused.

Summary

According to the 2012 survey results, 32 percent of fire companies in Pennsylvania were considered small, 39 percent were considered mid-size and 29 percent were considered large.

The survey results show that there are differences among Pennsylvania's small and large fire companies, including the number of firefighters the companies recruited and retained, the size of their budgets, and their ability to respond to calls.

The similarities among these companies included the methods they used to recruit new firefighters, the number of fundraising events they held, and their discussions on consolidation or merger.