

Figure 6: Locations of fire departments by population protected.
Source: NFA Fire Service Survey, 2011–2013.

Table 12.
 Number of Departments and Percent of U.S. Population Protected by Type of Department, 2015.

Type of Department	Number	Percent	Percent of U.S. Population Protected
All Career	2,651	8.9%	49.2%
Mostly Career	1,893	6.4%	15.6%
Mostly Volunteer	5,421	18.2%	16.0%
All Volunteer	19,762	66.5%	19.1%
Total	29,727	100.0%	100.0%

Source: NFPA Fire Service Survey 2013-2015, and NFPA Survey of Fire Departments for U.S. Fire Experience, 2015.

Department type is broken into four categories. All career departments are comprised 100% of career firefighters. Mostly career is comprised of 51 to 99% career firefighters, while volunteer is comprised of 1 to 50% career firefighters. All volunteer departments are comprised 100% of volunteer firefighters.

Table 13.
Number of Fire Departments in the U.S. by Population Protected, 2015.

Population Protected	Number of Fire Departments	Percentage
1,000,000 or more	16	0.1%
500,000 to 999,999	42	0.1%
250,000 to 499,999	62	0.2%
100,000 - 249,999	272	0.9%
50,000 to 99,999	541	1.8%
25,000 to 49,999	1,320	4.4%
10,000 to 24,999	3,529	11.9%
5,000 to 9,999	4,283	14.4%
2,500 to 4,999	5,409	18.2%
Under 2,500	14,253	47.9%
Total	29,727	100.0%

Source: NFPA Fire Service Survey, 2013-2015.

Table 14.
Department Type by Population Protected, 2015.

Population Protected	All Career	Mostly Career	Mostly Volunteer	All Volunteer	Total
1,000,000 or more	69.2%	30.8%	0.0%	0.0%	100.0%
500,000 to 999,999	80.0%	13.3%	6.7%	0.0%	100.0%
250,000 to 499,999	81.8%	15.2%	3.0%	0.0%	100.0%
100,000 - 249,999	87.3%	10.3%	1.6%	0.8%	100.0%
50,000 to 99,999	69.8%	17.3%	11.9%	1.0%	100.0%
25,000 to 49,999	52.2%	22.3%	19.2%	6.2%	100.0%
10,000 to 24,999	21.6%	25.1%	35.9%	17.5%	100.0%
5,000 to 9,999	6.3%	8.6%	40.4%	44.8%	100.0%
2,500 to 4,999	0.9%	1.8%	23.3%	74.0%	100.0%
Under 2,500	1.2%	0.7%	5.5%	92.7%	100.0%
All Departments	8.9%	6.4%	18.2%	66.5%	100.0%

Source: NFPA Survey of Fire Departments for U.S. Fire Experience, 2015.

Department type is broken into four categories. All career departments are comprised 100% of career firefighters. Mostly career is comprised of 51 to 99% career firefighters, while volunteer is comprised of 1 to 50% career firefighters. All volunteer departments are comprised 100% of volunteer firefighters.

Fire Department Apparatus and Stations

Estimates of the number of apparatus and stations in the United States for the 2013-2015 period indicate that there were 71,800 pumpers, 7,300 aerial apparatuses, 79,050 other suppression vehicles (which includes pumpers less than 1,000 gpm, hose usage, brush vehicles, tanker, etc.) and 58,750 stations.

[Table 15](#) provides a breakdown of the average apparatus and station rates by community size.⁶

It is worth emphasizing what the indicated rates in Table 15 really mean. The numbers reflect apparatus averages and station rates per 1,000 people by population protected reported to the NFPA. They do *not* represent recommended rates or some defined fire protection standard.

The rates are higher for departments protecting smaller communities (under 2,500). This is because it takes a minimum number of apparatus and stations to operate a fire department regardless of the number of people protected. For instance, for a department protecting 1,000 people, you would expect according to Table 15 an average of 1.192 pumpers, 1.871 other suppression vehicles, 0.035 aerial apparatus, and 0.943 stations. The 0.943 stations per 1,000 people is the highest rate shown in Table 15, but for this community size it is equivalent to one station per department. Another way to put this is that for every 100 departments protecting 1,000 people, you would expect approximately 119 pumpers, 187 other suppression vehicles, 4 aerial apparatus, and 94 stations. For communities of 25,000 to 999,999, the rates tend to be quite similar: 0.056 - 0.107 pumpers per 1,000 people; and 0.024 - 0.067 other suppression vehicles; 0.014 - 0.022 aerial apparatus per 1,000 people, and 0.055 - 0.095 stations per 1,000 people.

[Table 16](#), [Table 17](#), [Table 18](#), and [Table 19](#) display the prevalence of pumpers, other suppression vehicles, aerial apparatus, and stations by size of community.

⁶ Note that these results are based on a sample survey, and as a result there is a confidence interval associated with each estimate. Based on the data reported by fire departments responding to the NFPA Fire Service Survey (2013 -2015), the NFPA is 95% confident that the actual number of pumpers falls between 71,650 and 71,950; aerial apparatus between 7,250 and 7,350; other suppression vehicles between 78,800 and 79,300.

Table 15.
Average Apparatus and Station Rates per 1,000 Population by Community Size, 2013-2015.

Population Protected	Pumpers per 1,000 Population	Other Suppression Vehicles ⁷ per 1,000 Population	Aerial Apparatus per 1,000 Population	Stations per 1,000 Population
1,000,000 or more	0.034	0.010	0.013	0.034
500,000 to 999,999	0.056	0.024	0.015	0.055
250,000 to 499,999	0.058	0.025	0.014	0.058
100,000 - 249,999	0.067	0.031	0.014	0.070
50,000 to 99,999	0.085	0.041	0.016	0.083
25,000 to 49,999	0.107	0.067	0.022	0.095
10,000 to 24,999	0.185	0.138	0.034	0.151
5,000 to 9,999	0.321	0.298	0.037	0.310
2,500 to 4,999	0.548	0.642	0.030	0.353
Under 2,500	1.192	1.871	0.035	0.943
National Average	0.224	0.224	0.023	0.183

Source: NFPA Fire Service Survey, 2013-2015.

⁷ Other suppression vehicles include apparatus with pumps less than 1,000 gpm, hose wagons, brush fire vehicles, tankers, etc.

These results reflect average apparatus and station rates per 1,000 people by population protected reported to the NFPA. They do not reflect recommended rates or some defined fire protection standard.

Table 16.
Pumpers (1,000 gpm or greater) by Community Size, 2013-2015.

Percentage of U.S. Fire Departments With						
Population Protected	1-5 Pumpers	6-9 Pumpers	10-19 Pumpers	20-39 Pumpers	40 or More Pumpers	Total
1,000,000 or more	0.0%	0.0%	0.0%	25.0%	75.0%	100.0%
500,000 to 999,999	0.0%	0.0%	2.4%	63.4%	34.1%	100.0%
250,000 to 499,999	0.0%	3.3%	50.0%	43.3%	3.3%	100.0%
100,000 - 249,999	15.7%	43.8%	32.9%	7.2%	0.4%	100.0%

Percentage of U.S. Fire Departments With						
Population Protected	No Pumpers	1 Pumper	2 Pumpers	3-4 Pumpers	5 or More Pumpers	Total
50,000 to 99,999	1.4%	1.2%	7.5%	33.5%	56.3%	100.0%
25,000 to 49,999	1.2%	5.1%	23.3%	45.6%	24.8%	100.0%
10,000 to 24,999	0.8%	8.5%	33.3%	47.2%	10.2%	100.0%
5,000 to 9,999	1.3%	14.5%	44.6%	36.0%	3.5%	100.0%
2,500 to 4,999	2.2%	22.9%	50.3%	23.4%	1.3%	100.0%
Under 2,500	10.8%	41.4%	39.3%	8.3%	0.2%	100.0%

Source: NFPA Fire Service Survey, 2013-2015.

Note that pumpers reported above had a capability of 1,000 gpm or greater. Note that many departments reported other fire suppression vehicles including apparatus with pumps less than 1,000 gpm, hose wagons, brush fire vehicles, tankers, etc.

Table 17.
Other Suppression Vehicles by Community Size, 2013-2015.

Percentage of U.S. Fire Departments With Other Suppression Vehicles							
Population Protected	1-3	4-5	6-9	10-19	20-29	30 or More	Total
1,000,000 or more	18.8%	0.0%	0.0%	25.0%	25.0%	31.3%	100.0%
500,000 to 999,999	15.4%	15.4%	12.8%	28.2%	15.4%	12.8%	100.0%
250,000 to 499,999	21.6%	17.6%	23.5%	23.5%	9.8%	3.9%	100.0%
100,000 - 249,999	52.6%	15.8%	17.3%	9.2%	2.0%	3.1%	100.0%

Percentage of U.S. Fire Departments With Other Suppression Vehicles						
Population Protected	None	1	2	3-4	5 or More	Total
50,000 to 99,999	29.6%	18.0%	15.7%	18.8%	17.8%	100.0%
25,000 to 49,999	29.9%	22.3%	17.7%	17.3%	12.8%	100.0%
10,000 to 24,999	24.4%	22.8%	20.1%	21.1%	11.6%	100.0%
5,000 to 9,999	17.1%	22.5%	25.2%	25.7%	9.6%	100.0%
2,500 to 4,999	11.5%	20.8%	27.8%	30.3%	9.6%	100.0%
Under 2,500	9.8%	23.3%	28.6%	29.8%	8.5%	100.0%

Source: NFPA Fire Service Survey, 2013-2015.

Other suppression vehicles include apparatus with pumps less than 1,000 gpm, hose wagons, brush fire vehicles, tankers, etc.

Table 18.
Aerial Apparatus by Community Size, 2013-2015.

Population Protected	Percentage of U.S. Fire Departments With					Total
	No Aerial Apparatus	1-5 Aerial Apparatus	6-9 Aerial Apparatus	10-19 Aerial Apparatus	20 or More Aerial Apparatus	
1,000,000 or more	0.0%	12.5%	0.0%	31.3%	56.3%	100.0%
500,000 to 999,999	4.9%	19.5%	29.3%	39.0%	7.3%	100.0%
250,000 to 499,999	4.9%	63.9%	24.6%	6.6%	0.0%	100.0%

Population Protected	Percentage of U.S. Fire Departments With					Total
	No Aerial Apparatus	1 Aerial Apparatus	2 Aerial Apparatus	3-4 Aerial Apparatus	5 or More Aerial Apparatus	
100,000 to 249,999	19.4%	25.0%	26.6%	18.7%	10.3%	100.0%
50,000 to 99,999	29.0%	39.1%	24.0%	7.5%	0.4%	100.0%
25,000 to 49,999	36.5%	50.6%	12.5%	0.4%	0.1%	100.0%
10,000 to 24,999	49.4%	47.1%	3.3%	0.2%	0.1%	100.0%
5,000 to 9,999	73.3%	25.7%	0.9%	0.1%	0.0%	100.0%
2,500 to 4,999	89.2%	10.4%	0.4%	0.0%	0.0%	100.0%
Under 2,500	96.0%	3.7%	0.3%	0.0%	0.0%	100.0%

Source: NFPA Fire Service Survey, 2013-2015.

Table 19.
Fire Stations by Community Size, 2013-2015.

Population Protected	Percentage of U.S. Fire Departments With					Total
	1-5 Stations	6-9 Stations	10-19 Stations	20-29 Stations	30 or More Stations	
1,000,000 or more	0.0%	0.0%	0.0%	6.3%	93.8%	100.0%
500,000 to 999,999	0.0%	0.0%	2.4%	19.5%	78.0%	100.0%
250,000 to 499,999	0.0%	1.6%	49.2%	41.0%	8.2%	100.0%
100,000 - 249,999	9.9%	43.7%	39.7%	4.4%	2.4%	100.0%

Population Protected	Percentage of U.S. Fire Departments With					Total
	No Stations	1 Station	2 Stations	3 Stations	4 or More Stations	
50,000 to 99,999	0.0%	1.0%	3.5%	14.5%	81.0%	100.0%
25,000 to 49,999	0.0%	13.2%	24.3%	27.9%	34.6%	100.0%
10,000 to 24,999	0.0%	44.8%	30.5%	13.9%	10.8%	100.0%
5,000 to 9,999	0.1%	69.0%	20.8%	6.3%	3.8%	100.0%
2,500 to 4,999	0.1%	77.4%	16.8%	4.0%	1.7%	100.0%
Under 2,500	0.4%	86.4%	10.8%	1.7%	0.7%	100.0%

Source: NFPA Fire Service Survey, 2013-2015.

Emergency Medical Services

The level of emergency medical service (EMS) provided by fire departments by size of community protected for the 2013-2015 period is provided in [Table 20](#). The larger the community, the more likely EMS service was provided. Nationwide, 13,500 (45.4%) departments provided EMS with basic life support, 4,617 (15.5%) departments provided EMS with advanced life support, and 11,610 (39.1%) departments did not provide EMS.

U.S. Expenditures on Local Fire Protection

[Table 21](#) provides expenditures on local fire protection by governments, with and without adjustment for inflation. Note that these expenditures adjusted for inflation, have risen 170% from 1980 to 2014. Other municipal service costs like police protection have risen in a similar manner.

Fire protection costs rose 113% from 1986 to 2014 after adjusting for inflation, while the number of career firefighters increased 46% ([Table 2](#)). Since chiefs of fire departments serving larger communities report problems with shrinking budgets or with level budgets combined with increasing responsibilities, this clear pattern of increasing fire department resources nationwide is difficult to interpret. Some of the factors possibly contributing to this increase in costs are (1) shrinkage of the work week⁸ for some departments, which results in a need to increase staffing and apparatus or to pay firefighters at overtime rates; (2) increased EMS responsibilities that require increased staffing and, in some communities, a more frequent replacement of apparatus; and (3) rising costs of retirement and health benefits.

⁸ This is the result at least to some extent of the Fair Labor Standards Act being applied to municipal fire departments.

Table 20.
 Departments Providing Emergency Medical Service by
 Community Size (Percent), 2013-2015.

Population Protected	No EMS	BLS	ALS	Total
1,000,000 or more	0.0%	0.0%	100.0%	100.0%
500,000 to 999,999	0.0%	29.3%	70.7%	100.0%
250,000 to 499,999	1.6%	26.2%	72.1%	100.0%
100,000 - 249,999	3.2%	33.3%	63.5%	100.0%
50,000 to 99,999	6.4%	37.3%	56.3%	100.0%
25,000 to 49,999	16.4%	36.7%	46.9%	100.0%
10,000 to 24,999	27.2%	41.2%	31.6%	100.0%
5,000 to 9,999	38.5%	43.2%	18.4%	100.0%
2,500 to 4,999	41.2%	46.6%	12.2%	100.0%
Under 2,500	45.7%	48.2%	6.1%	100.0%
Nationwide	39.1%	45.4%	15.5%	100.0%

Source: NFPA Fire Service Survey, 2013-2015.

BLS refers to fire departments providing basic life support and ALS refers to fire departments providing advanced life support.

Table 21.
Direct Expenditures on Local Fire Protection.

Year	Expenditures (in Billions)	Expenditures (in Billions) Adjusted for Inflation*	U.S. Resident Population
1980	\$5.7	\$16.4	227,225
1981	\$6.3	\$16.5	229,466
1982	\$7.0	\$17.2	231,664
1983	\$7.6	\$18.1	233,792
1984	\$8.2	\$18.7	235,825
1985	\$8.5	\$18.8	237,924
1986	\$9.6	\$20.8	240,133
1987	\$10.5	\$21.9	242,289
1988	\$11.8	\$23.7	244,499
1989	\$11.9	\$22.8	246,819
1990	\$13.2	\$24.0	249,464
1991	\$13.8	\$24.1	252,153
1992	\$14.4	\$24.4	255,030
1993	\$15.4	\$25.3	257,783
1994	\$16.1	\$25.8	260,327
1995	\$17.0	\$26.5	262,803
1996	\$17.7	\$26.8	265,229
1997	\$19.4	\$28.7	267,784
1998	\$20.3	\$29.6	270,248
1999	\$21.3	\$30.3	272,691
2000	\$23.1	\$31.8	282,172
2001	\$25.0	\$33.5	285,082
2002	\$26.0	\$34.3	287,804
2003	\$28.4	\$36.6	290,326
2004	\$30.7	\$38.6	293,046
2005	\$34.2	\$41.6	295,753
2006	\$34.2	\$40.3	298,593
2007	\$36.8	\$42.1	301,580
2008	\$39.7	\$43.8	304,375
2009	\$40.3	\$44.6	307,007
2010	\$42.6	\$46.4	309,326
2011	\$42.3	\$44.6	311,583
2012	\$42.5	\$43.5	313,874

Table 21.
Direct Expenditures on Local Fire Protection. (Continued)

Year	Expenditures (in Billions)	Expenditures (in Billions) Adjusted for Inflation*	U.S. Resident Population
2013	\$43.4	\$44.2	316,129
2014	\$44.1	\$44.2	318,857

Source: U.S. Bureau of the Census, *Economy-wide Statistics Division*.

*Adjustments were made to 2015 dollars using the Consumer Price Index.

Appendix 1. Number of U.S. Fire Departments

Year	Total	All Career	Mostly Career	Mostly Volunteer	All Volunteer
1986	29,840	1,999	1,044	3,640	23,157
1987	29,741	1,683	1,335	3,635	23,088
1988	30,245	1,729	1,405	3,908	23,203
1989	30,315	1,799	1,303	3,878	23,335
1990	30,391	1,949	1,338	4,000	23,104
1991	30,587	2,017	1,257	4,162	23,151
1992	30,562	1,843	1,217	4,377	23,125
1993	30,528	1,646	1,342	4,378	23,162
1994	30,495	1,778	1,448	4,400	22,869
1995	31,197	1,831	1,660	4,581	23,125
1996	31,503	1,872	1,380	4,863	23,388
1997	30,665	1,979	1,490	4,808	22,388
1998	31,114	2,028	1,602	4,848	22,636
1999	30,436	1,752	1,639	4,651	22,394
2000	30,339	2,178	1,667	4,523	21,971
2001	30,020	1,928	1,539	4,671	21,882
2002	30,310	2,044	1,480	4,886	21,900
2003	30,542	2,018	1,582	5,271	21,671
2004	30,400	1,917	1,242	4,084	23,157
2005	30,300	2,087	1,766	4,902	21,575
2006	30,635	2,321	1,731	5,134	21,449
2007	30,185	2,263	1,765	4,989	21,168
2008	30,170	2,315	1,790	4,830	21,235
2009	30,165	2,457	1,752	5,099	20,857
2010	30,125	2,495	1,860	5,290	20,480
2011	30,145	2,550	1,865	5,530	20,200
2012	30,100	2,610	1,995	5,445	20,050
2013	30,052	2,477	1,971	5,797	19,807
2014	29,980	2,440	2,045	5,580	19,915
2015	29,727	2,651	1,893	5,421	19,762

A fire department is a public or private organization that provides fire prevention, fire suppression and associated emergency and non-emergency services to a jurisdiction such as a county, municipality, or organized fire district.

Source: NFPA Fire Service Inventory and NFPA Survey of Fire Departments for U.S. Fire Experience, 1986-2015.

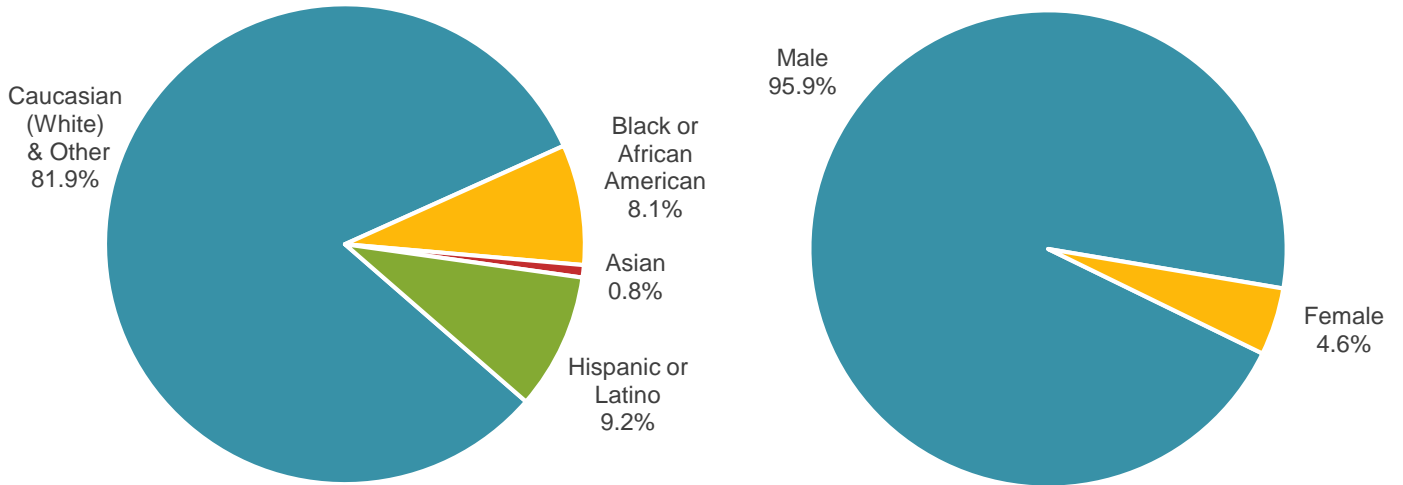
Appendix 2. Number of Fire Stations, Pumpers, Other Suppression Vehicles and Aerial Apparatus

Year	U. S. Fire Stations	Pumpers >1,000 gpm	Other Suppression Vehicles*	Aerial Apparatus
1995-1997	48,850	68,300	---	6,450
1996-1998	51,000	69,150	---	6,450
1997-1999	52,100	69,000	---	6,300
1998-2000	49,200	68,200	---	6,400
1999-2001	51,500	68,000	---	6,500
2000-2002	50,900	67,950	---	6,300
2001-2003	51,650	68,950	---	6,500
2002-2004	51,450	67,800	---	6,500
2003-2005	52,950	68,950	---	6,600
2004-2006	53,200	69,300	---	6,700
2005-2007	51,900	68,050	74,350	6,750
2006-2008	52,400	68,200	75,300	6,725
2007-2009	52,050	68,400	74,250	6,750
2008-2010	51,300	66,800	72,800	6,800
2009-2011	55,400	67,000	73,800	6,900
2010-2012	51,650	66,900	74,000	6,900
2011-2013	51,150	69,150	76,300	7,000
2012-2014	58,150	70,550	81,000	7,200
2013-2015	58,750	71,800	79,050	7,300

* Other suppression vehicles include apparatus with pumps less than 1,000 gpm, hose wagons, brush fire vehicles, tankers, etc.

Source: NFPA Fire Service Survey, 2013-2015 and NFPA Survey of Fire Departments for the U.S. Fire Experience, 2015.

Appendix 3. Average Percentage of Career Firefighters by Gender, Race, and Hispanic or Latino Ethnicity (2011-2015)



Source: Bureau of Labor Statistics, Annual Averages Tables Employment and Earnings

*Note: These statistics do not include volunteer firefighters