

U.S. Fire Administration

NFIRS

Representativeness Study

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About the National Fire Incident Reporting System

The National Fire Incident Reporting System (NFIRS) is a voluntary, all incident based data collection system. Section 9b of the Fire Prevention and Control Act, Public Law (PL 93-498) specifies that the United States Fire Administration (USFA) develop standardized data reporting methods and encourage and assist State, local, and other agencies, public and private, in developing and reporting information. NFIRS was developed specifically to address these two requirements.

All fire departments in the U.S. are eligible to participate in reporting to NFIRS on a voluntary basis. Participating fire departments collect a common core of information on an incident and any casualties that ensue by using a common set of definitions. The data may be collected using paper forms in some States or submitted electronically. Local agencies forward the completed NFIRS modules to the State agency responsible for NFIRS data. The State agency combines the information with data from other fire departments into a statewide database and then transmits the data to the National Fire Data Center (NFDC) at USFA. Data on individual incidents and casualties are preserved incident by incident at local, State, and national levels. Once limited to fire incidents only, NFIRS now encompasses all incidents to which the fire department responds—fire, emergency medical services (EMS), hazardous materials (Hazmat), and the like.¹

NFIRS data are used extensively at all levels of government for major fire protection decisions. At the local level, incident and casualty information are used for setting priorities and targeting resources. The data collected are particularly useful for designing fire prevention and educational programs and EMS-related activities specifically suited to the real emergency problems the local community faces.

At the State level, NFIRS is used in many capacities. Many States mandate NFIRS reporting departments for their own purposes. One valuable contribution is that some State legislatures use these data to justify budgets and to pass important bills on fire-related issues such as sprinklers, fireworks, and arson.

Many Federal agencies, in addition to USFA, make use of NFIRS data. NFIRS data are used, for example, by the Consumer Product Safety Commission (CPSC) to identify problem products and to monitor corrective actions. The Department of Transportation (DOT) uses NFIRS data to identify fire problems in automobiles, which has resulted in mandated recalls. The Department of Housing and Urban Development (HUD) uses NFIRS to evaluate safety of manufactured housing (mobile homes). The USFA uses the data to design prevention programs, to order firefighter safety priorities, to assist in the development of training courses at the National Fire Academy (NFA), and for a host of other purposes.²

¹ U.S. Fire Administration's, *Fire in the United States 1995-2004, 14th Edition*, August 2007.

² Ibid.

It is important to note that NFIRS data are used by USFA and other Federal agencies to derive national fire data estimates. USFA does not use NFIRS data to produce State or county level fire estimates.

Based on proprietary data from the National Fire Protection Association (NFPA), there was an annual average estimate of 30,400 fire departments in the U.S. for the years 2004 to 2006. Approximately 77 percent of these departments reported fire incidents to NFIRS in at least one of these three years. NFIRS has seen approximately a 76 percent increase in the number of departments reporting fires between 1999 and 2006 (the last year for which all States have released their NFIRS data). In 1999, there were 11,067 departments reporting fires to NFIRS and in 2006, there were 19,532 departments reporting fires. Some of this increase can be explained by the number of fire departments receiving Assistance to Firefighters Grants. If a fire department is a recipient of one of these grants, then NFIRS participation is required.³

³ From the Assistance to Firefighters Grant Program guidance, if the applicant is a fire department, the department must agree to provide information, through established reporting channels, to NFIRS for the period covered by the assistance. If a fire department does not currently participate in the incident reporting system and does not have the capacity to report at the time of the award, the department must agree to provide information to the system for a 12-month period that begins as soon as the department develops the capacity to report. See <http://www.firegrantsupport.com/docs/2008AFGguidance.pdf>.

Background and Purpose of an NFIRS Representativeness Study

In the past, the Office of Management and Budget (OMB) has questioned why the NFIRS data collection should be a census of incidents for all departments rather than a statistical sample. USFA has investigated the possibility of sampling and the issues surrounding it. While there are certain advantages to a statistical sampling methodology, USFA has not undertaken a sampling approach to fire data collection for several reasons. As previously mentioned, USFA is directed by Public Law to develop a standardized incident data reporting method and assist local and State agencies in reporting incident data to this system. Because NFIRS is used at the local, State, and Federal levels, abandoning it for a statistical sampling method would adversely impact State and local fire department data collection and the NFIRS standard, which is also used internationally. Additionally, much of the cost burden of the current NFIRS data collection is carried by the State NFIRS operations. USFA has relied heavily on States as cooperative partners in bearing the costs and resources of maintaining the system, and the States have relied on USFA to shoulder the development costs. Switching to a sampling method would mean USFA would need to acquire additional funding and personnel to design and maintain a new sampling system, leaving the State and local entities to wholly cover the cost of a data collection system.

Regardless, OMB directed USFA to complete a study regarding the bias in NFIRS due to nonresponse. As a result, USFA completed this study to identify fire departments that do not participate in NFIRS, characteristics of these departments, and whether their nonresponse impacts the representativeness of NFIRS. In addition, based on OMB's instructions for previous terms of clearance for the NFIRS form renewal, this study identifies how USFA might continue efforts to encourage even more participation in the all incident based data collection system.

Scope and Methodology

To complete this *NFIRS Representativeness Study*, USFA matched the NFIRS database with USFA's National Fire Department Census database. By matching these two databases, USFA was able to identify characteristics of fire departments that are necessary to determine representativeness. The characteristics of NFIRS departments that did not match to the census were also studied.

Because NFIRS is a voluntary system, fire departments that report fires in one particular year may not report fires in the next year. As a result, USFA used the 2004-2006 NFIRS databases to determine the unique number of fire departments that reported fires during that time period and to match against the census database. Between 2004 and 2006, a total of 23,390 departments reported fires to NFIRS.

In the past several years, USFA assembled as complete as practicable a National Fire Department Census, which currently has about 26,000 fire departments registered. The census is considered a representative universe of all fire departments as it includes approximately 86 percent⁴ of the more than estimated 30,000 fire departments in the U.S.⁵ Fire departments in the census database that had missing or blank Fire Department Identification Numbers (FDIDs) were removed from the census database along with departments located in the U.S. Territories. As a result, the remaining number of fire departments in the census that were matched against the NFIRS database was 25,707.

To match the NFIRS database to the census database, USFA used the State and FDID fields as FDIDs are unique within each State. Those fire departments identified in the census database that matched to the current NFIRS database were identified as "Census-NFIRS." Those that did not match to the current NFIRS database were identified as "Census-nonNFIRS." There were 19,430 departments in the census that matched to departments that reported fires to NFIRS (Census-NFIRS), whereas 6,277 departments in the census did not report fires to NFIRS (Census-nonNFIRS). Additionally, there were 3,960 departments that reported fires to NFIRS, but did not match to the census database. These departments were identified as "NFIRS-nonCensus." While the census appears to reflect 86 percent of the estimated fire departments in the U.S., by including the NFIRS-nonCensus departments as part of this study, the fire department population examined is approximately 95 percent of the total estimate of fire departments in the country.

Using the fire department census data, USFA was able to identify and analyze characteristics of the Census-NFIRS and Census-nonNFIRS departments that are important when determining representativeness. For instance, USFA examined the geographic location of fire departments

⁴ OMB's rule of thumb often used for samples is that the sample should cover 80 percent of the population total. *Questions and Answers When Designing Surveys for Information Collections*, Office of Information and Regulatory Affairs, OMB, January 2006.

⁵ For more information about the National Fire Department Census, please visit: <http://www.usfa.dhs.gov/applications/census>.

that report fires to NFIRS versus fire departments that do not report fires to NFIRS. In addition to geographic location, type of department was also considered.

Finally, another key characteristic, population protected was studied. The current census database includes fields for population protected and area protected. Population protected refers to the resident population in a department's first due response area. Population protected, however, means many different things to many different departments. For example, as submitted to the National Fire Department Census, some departments with large seasonal populations combined the seasonal population protected with the resident population protected and provided that total to the census. Other departments included populations of mutual aid areas covered in addition to first due response areas. These scenarios and others result in fire departments across the country over counting the U.S. population protected. The same is true for the area protected data. As a result, the population and area protected data are not considered reliable.

Because the fire department census data for population and area protected are suspect, it was necessary to use other means to capture these two variables. Since 1998, USFA has used the United States Department of Agriculture's (USDA) Rural-Urban Continuum Code (RUC) as a means to categorize fire departments by population and place.⁶ USFA believes the assignment of the 2003 Rural-Urban Continuum Code (2003 RUC Code) to be a reasonable proxy for population protected and the distinction between rural and urban areas. Therefore, USFA assigned the appropriate 2003 RUC Code to each fire department in the census based on the Federal Information Processing Standard (FIPS) State and County codes.

The 2003 RUC Codes form a classification scheme that distinguishes metropolitan (metro) counties by the population size of their metro area, and nonmetropolitan (nonmetro) counties by degree of urbanization and adjacency to a metro area or areas. The metro and nonmetro categories have been subdivided into three metro and six nonmetro groupings, resulting in a nine-part county codification. All U.S. counties and county equivalents are grouped according to their official metro-nonmetro status announced by the OMB in June 2003, when the population and worker commuting criteria used to identify metro counties were applied to results of the 2000 Census.⁷ Table 1 provides the 2003 RUC Codes.

⁶ See United States Fire Administration, *The Rural Fire Problem in the United States*, FA-180, August 1998 for the initial use of the USDA RUC Code. This document also contains a discussion of USFA's choice of the RUC Code over other schemas.

⁷ United States Department of Agriculture, Economic Research Service, *Measuring Rurality: Rural-Urban Continuum Codes*: <http://www.ers.usda.gov/Briefing/Rurality/RuralUrbCon/>.

Table 1. 2003 Rural-Urban Continuum Codes

Code	Description
Metro counties:	
1	Counties in metro areas of 1 million population or more
2	Counties in metro areas of 250,000 to 1 million population
3	Counties in metro areas of fewer than 250,000 population
Nonmetro counties:	
4	Urban population of 20,000 or more, adjacent to a metro area
5	Urban population of 20,000 or more, not adjacent to a metro area
6	Urban population of 2,500 to 19,999, adjacent to a metro area
7	Urban population of 2,500 to 19,999, not adjacent to a metro area
8	Completely rural or less than 2,500 urban population, adjacent to a metro area
9	Completely rural or less than 2,500 urban population, not adjacent to a metro area

Source: USDA's *Measuring Rurality: Rural-Urban Continuum Codes*

The first part of the report briefly addresses fire department characteristics at a national level (based on data from the NFPA). The remainder of the report focuses on the analysis of characteristics of the fire departments registered with the census, both NFIRS (Census-NFIRS) and non-NFIRS (Census-nonNFIRS) departments, and NFIRS reporting departments not registered with the census (NFIRS-nonCensus). Additionally, there is a Maps section showing NFIRS reporting departments versus nonreporting departments for the Nation and each region of the country. Finally, the entire report is summarized in the conclusion section and concludes with a recommendation section, followed by the Appendices.

NFPA Fire Department Characteristics

To understand fire department characteristics at the national level, a one year snapshot of fire department data is observed. In 2006, the NFPA estimated that there were 30,635 fire departments in the U.S.⁸ NFPA describes fire department personnel as career or volunteer. Career personnel are uniformed firefighters that are employed full-time regardless of duties (e.g., administrative, fire suppression, fire prevention, etc.). Volunteer personnel include part-time firefighters (paid per call) and firefighters who do not receive monetary contributions for their services. Fire departments are classified into one of four department type⁹ categories based on the number of fire department personnel. These four department types include all career, mostly career, mostly volunteer, and all volunteer. Table 2 shows the number and percentage of fire departments by type of department.

Table 2. NFPA Estimate and Percentage of Fire Departments by Type of Department, 2006

Type of Department	Number	Percent
All Career	2,321	7.6
Mostly Career	1,731	5.6
Mostly Volunteer	5,134	16.8
All Volunteer	21,449	70.0
Total	30,635	100.0

Source: NFPA's *U.S. Fire Department Profile Through 2006*

Additionally, the type of department by population protected is shown in Table 3. It can be noted that fire department types vary considerably by community size. For population protected of 25,000 or more, the percentages of departments identified as all career and mostly career range from 73 percent to 100 percent. For departments where the population protected is less than 25,000, the percentages of departments identified as all volunteer and mostly volunteer range from 64 to 98 percent.¹⁰

⁸ Michael J. Karter, *U.S. Fire Department Profile Through 2006*, NFPA, November 2007.

⁹ The numbers of fire department personnel are used to determine the department type. (All Career: 100 percent of a department's firefighters are career; Mostly Career: 51-99 percent of a department's firefighters are career; Mostly Volunteer: 1-50 percent of a department's firefighters are career; All Volunteer: 100 percent of a department's firefighters are volunteer).

¹⁰ Michael J. Karter, *U.S. Fire Department Profile Through 2006*, NFPA, November 2007.

Table 3. Type of Department by Population Protected (Percent), 2006

Population Protected	All Career	Mostly Career	Mostly Volunteer	All Volunteer	Total
1,000,000 or more	77.8	22.2	0.0	0.0	100.0
500,000 to 999,999	63.3	26.7	10.0	0.0	100.0
250,000 to 499,999	70.0	23.3	6.7	0.0	100.0
100,000 to 249,999	82.6	16.5	0.8	0.0	100.0
50,000 to 99,999	69.3	20.6	8.8	1.3	100.0
25,000 to 49,999	48.5	24.2	19.2	8.1	100.0
10,000 to 24,999	15.2	21.2	41.9	21.7	100.0
5,000 to 9,999	4.7	5.5	40.8	49.0	100.0
2,500 to 4,999	2.4	2.2	18.5	76.9	100.0
Under 2,500	0.9	0.7	3.2	95.2	100.0
All Departments	7.6	5.6	16.8	70.0	100.0

Source: NFPA's *U.S. Fire Department Profile Through 2006*

Note: Total percents may not add to 100 due to rounding.

Fire Departments Registered with the Census

This phase of the study focuses on fire departments that were registered with the census, both those that reported to NFIRS and those that did not report during the years 2004 through 2006. Census-NFIRS and Census-nonNFIRS departments are studied to identify differences in characteristics between the two groups.

Census Fire Departments Reporting Fires to NFIRS

Table 4 shows the frequency of Census-NFIRS and Census-nonNFIRS departments for each 2003 RUC Code category and the percentage of census departments reporting fires to NFIRS during the years 2004 through 2006. Overall, the percentages of fire departments reporting to NFIRS range from 69 percent in counties adjacent to a metro area that are completely rural or have an urban population less than 2,500 (2003 RUC Code is 8) to 79 percent in counties in metro areas with a population of 1 million or more (2003 RUC Code is 1).

The highest percentages of reporting departments occur in metro counties (2003 RUC Codes are 1, 2, and 3). Although the highest percentage of reporting departments occurs in the category where the 2003 RUC Code is 1, the highest number of nonreporting departments is also found in this same category. Of the nonreporting departments in this category, approximately 21 percent are career¹¹ or mostly career fire departments. Table I-1 in Appendix I shows the number of Census-NFIRS and Census-nonNFIRS departments by the 2003 RUC Code and department type.

The lowest percentages of reporting departments occur in counties that are completely rural or have urban populations less than 2,500 (2003 RUC Codes are 8 and 9). In these rural counties, 95 percent of the Census-nonNFIRS departments consist of 100 percent volunteer firefighters.

¹¹ Fire departments in the census are assigned department types based on the number of active career, volunteer, and paid per call firefighting personnel per department. For 73 Census-NFIRS departments and 65 Census-nonNFIRS departments no firefighting personnel data were reported (these departments were not assigned a department type). The department types are based on the NFPA definition (Career: 100 percent of a department's firefighters are career; Mostly Career: 51-99 percent of a department's firefighters are career; Mostly Volunteer: 1-50 percent of a department's firefighters are career; Volunteer: 100 percent of a department's firefighters are volunteer).

Table 4. Percent of Census Departments Reporting Fires to NFIRS in 2004-2006 by the 2003 RUC Code

2003 RUC Codes	Census-NFIRS Departments	Census-nonNFIRS Departments	Total Departments	Percent of Departments Reporting Fires
1	4,475	1,203	5,678	78.8
2	3,328	950	4,278	77.8
3	2,454	689	3,143	78.1
4	1,894	693	2,587	73.2
5	709	208	917	77.3
6	2,880	1,097	3,977	72.4
7	1,913	660	2,573	74.3
8	707	316	1,023	69.1
9	1,070	461	1,531	69.9
Total	19,430	6,277	25,707	75.6

Source: USFA's National Fire Department Census and 2004-2006 NFIRS data.

Table 5 shows the percentage of census departments reporting fires to NFIRS during the years 2004 through 2006 by the 2003 RUC Code within U.S. Census Bureau Region.¹² Overall, the percentages of fire departments reporting fires to NFIRS during the years 2004 to 2006 range from 68 percent in the West to 85 percent in the Midwest. Table I-2 and Table I-3 in Appendix I show the overall distributions of the Census-NFIRS and Census non-NFIRS departments, respectively, by the 2003 RUC Code and U.S. Census Bureau region. Table I-4 and Table I-5 in Appendix I show the number of fire departments in each region by the 2003 RUC Code and department type for both the Census-NFIRS and Census-nonNFIRS groups, respectively. Table II-1 through Table II-8 in Appendix II show the numbers of Census-NFIRS and Census-nonNFIRS departments, respectively, by State within the 2003 RUC Code category and region.

Midwest

The Midwest region has the highest percentages of departments reporting fires to NFIRS. In this region, the percentages of departments reporting fires to NFIRS range from 75 to 93 percent. The Midwest shows an overall rate of 85 percent of departments reporting fire incidents.

The lowest percentages of departments reporting in the Midwest occur in counties where the urban population is less than 2,500 or is considered completely rural (2003 RUC Codes are 8 and 9). This can be expected, as nearly all fire departments (where active firefighting personnel data

¹² The regions of the United States are defined by the U.S. Census Bureau as the Northeast (Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont); South (Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia); Midwest (Iowa, Illinois, Indiana, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin); West (Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, New Mexico, Nevada, Oregon, Utah, Washington, Wyoming).

were reported) in these two RUC Code categories in the Midwest are classified as 100 percent volunteer or mostly volunteer departments. Volunteer departments generally have low call volumes and limited resources, including personnel and budgets, often leading to inadequate record keeping and difficulty in reporting incidents to NFIRS.

The metro counties and counties adjacent to a metro area where the urban population is 20,000 or more (2003 RUC Codes are 1, 2, 3, and 4) have the highest percentages of departments reporting fires in the Midwest. The highest rate (93 percent) of reporting fire departments occurs in counties in metro areas of a population of 1 million or more (2003 RUC Code is 1).

Given the voluntary nature of NFIRS, Table 5 demonstrates a high level of coverage in the Midwest for communities of all sizes.

Northeast

In the Northeast, the percentages of departments reporting fires to NFIRS range from 46 percent (where the 2003 RUC Code is 8) to 77 percent (where the 2003 RUC Code is 5). The Northeast shows an overall rate of 70 percent of fire departments reporting fire incidents to NFIRS.

The Northeast's population tends to be concentrated in larger urban areas, especially along the Eastern coast, and even for counties further inland, they generally have populations greater than 20,000. Compared to the other regions of the country, there are very few fire departments in counties with a population less than 20,000 (where the 2003 RUC Codes are 6, 7, 8, and 9).

Of all the regions, the Northeast has the lowest percentage (46 percent) of fire departments reporting in counties that are rural or have an urban population of less than 2,500 and are adjacent to a metro area (2003 RUC Code is 8). The 33 Census-nonNFIRS departments in this 2003 RUC Code category are located in Maine, New Hampshire, New York, Pennsylvania, and Vermont. Thirty percent of these departments are located in Pennsylvania where fire departments have only been reporting incidents to NFIRS since 2001 (approximately 41 percent of all PA departments now report fires using NFIRS¹³). Historically, Pennsylvania and New York have large numbers of fire departments, however, most of these departments tend to be small and staffed by volunteer firefighters. All 33 of the Census-nonNFIRS fire departments located in these nonmetro counties are volunteer or mostly volunteer departments.

In rural, nonmetro counties not adjacent to a metro area (2003 RUC Code is 9), 64 percent of departments reported fires to NFIRS. There were only nine census fire departments in this 2003 RUC Code category that did not report fires to NFIRS. All nine of these departments were comprised of 100 percent volunteer firefighters with 89 percent of the departments located in Pennsylvania.

¹³ In the U.S. Fire Administration's report, *Fire in the United States 1995-2004, 14th Edition*, Table 3 shows that in 2004 there were 2,389 fire departments in Pennsylvania and 1,995 departments in New York. The numbers of fire departments were provided by each State's Fire Marshal's office or equivalent agency.

For departments in counties adjacent to metro areas where the urban population is 20,000 or more (2003 RUC Code is 4), the percentage of departments reporting fires is 56 percent. Of the nonreporting departments in this category, approximately 97 percent of the departments are volunteer or mostly volunteer. Sixty-eight percent of the nonreporting departments in this 2003 RUC Code classification are located in Pennsylvania, with an additional 24 percent located in New York.

In Northeast counties with an urban population of 2,500 to 19,999, both adjacent and not adjacent to metro areas (where the 2003 RUC Codes are 6 and 7), the percentages of departments reporting fires to NFIRS range from 61 to 62 percent. Seventy percent of the departments not reporting fires to NFIRS in these two RUC Code categories are located in Pennsylvania and New York and are comprised of volunteer firefighters. Maine includes an additional 22 percent of nonreporting departments in these two RUC Code categories.

Approximately 70 percent of the Northeast's fire departments registered with the census are located in metro counties. In these counties, the Northeast has high levels of coverage ranging from 73 to 75 percent.

In the Northeast region of the country, the States with fire departments most consistently not reporting fires to NFIRS are Pennsylvania and New York. In recent years, progress has been made in Pennsylvania's reporting status. Although results for New York indicate a lack of department reporting, approximately 69 percent of departments in New York are reporting fires to NFIRS. Maine also indicates a lack of reporting in certain size communities.

South

The South leads the nation as the region with the largest number of fire departments registered with the census in the country. The percentages of departments reporting fires to NFIRS in the South range from 63 percent (where the 2003 RUC Code is 9) to 77 percent (where the 2003 RUC Code is 1). The South shows an overall rate of 73 percent of departments reporting fire incidents.

In the South, the lowest rates of departments reporting are found in nonmetro counties where the urban population is less than 2,500 or is completely rural (2003 RUC Codes are 8 and 9). Approximately 77 percent of the nonreporting departments where the 2003 RUC Code is 8 are concentrated in 5 of the 17 States in the South: Alabama, Arkansas, Georgia, North Carolina, and Texas. Additionally 99 percent of the nonreporting fire departments in this category are classified as all volunteer or mostly volunteer. Where the 2003 RUC Code category is 9, 46 percent of the Census-nonNFIRS departments are located in Oklahoma and North Carolina. All fire departments in this 2003 RUC Code category are volunteer or mostly volunteer.

For fire departments in counties adjacent to a metro area with an urban population of 2,500 to 19,999 (2003 RUC Code is 6), the percentage of departments reporting is 69 percent. Forty-nine percent of the nonreporting departments in this category are located in Texas (20 percent), Oklahoma (15 percent), and Alabama (14 percent).

The highest percentage (77 percent) of reporting departments in the South is found in metro counties where the population is 1 million or more (2003 RUC Code is 1). Fifty-three percent of the nonreporting departments in this category are concentrated in three States in the South: Texas (24 percent), Alabama (16 percent), and Virginia (12 percent).

West

The West, by far, has the least number of fire departments of all the regions of the United States. The percentages of departments reporting fires to NFIRS in this region range from 65 percent (where the 2003 RUC Code is 6) to 72 percent (where the 2003 RUC Code is 8). The West shows an overall rate of 68 percent of fire departments reporting fire incidents to NFIRS.

In the West region, the lowest percentage of departments reporting to NFIRS occurs in counties adjacent to a metro area with an urban population of 2,500 to 19,999 (2003 RUC Code is 6) where the percentage of Census-NFIRS reporting departments is 65 percent. Of the nonreporting departments in this 2003 RUC Code category, 45 percent of the departments are located in California (24 percent) and New Mexico (21 percent).

Where counties are not adjacent to a metro area and the urban population is 2,500 to 19,999 (2003 RUC Code is 7), 67 percent of departments report fires to NFIRS. In this 2003 RUC Code category, 42 percent of the nonreporting departments are located in California (24 percent) and Montana (18 percent).

In nonmetro counties with an urban population of 20,000 or more (where the 2003 RUC Codes are 4 and 5), approximately 87 percent of the departments are classified as all volunteer or mostly volunteer. Where the 2003 RUC Code category is 4, two of the 13 Western States account for 62 percent of the departments not reporting fires to NFIRS. These States include Arizona (44 percent) and California (18 percent). In the category where the 2003 RUC Code is 5, 27 percent of the nonreporting departments are located in California with an additional 23 percent located in New Mexico.

Table 5 shows that departments located in counties not adjacent to metro areas with a rural population or an urban population less than 2,500 (2003 RUC Code is 9) have a reporting rate of 67 percent. Approximately 69 percent of the departments not reporting in these counties are located in Montana (34 percent), Colorado (17 percent), and New Mexico (17 percent).

Sixty-eight to 70 percent of fire departments located in the metro regions of the West reported fires to NFIRS (2003 RUC Codes are 1, 2, and 3). Nonreporting fire departments located in counties in metro areas with a population of 1 million or more (2003 RUC Code is 1) were found

to be concentrated in California (63 percent). An additional 18 percent of nonreporting departments were located in Arizona and another 10 percent were found in Colorado.

In metro counties consisting of 250,000 to 1,000,000 people (2003 RUC Code is 2), 48 percent of Census-nonNFIRS departments are located in California. In counties in metro areas with a population less than 250,000 people (2003 RUC Code is 3), approximately 47 percent of nonreporting departments were located in California (24 percent) and Arizona (22 percent).

In the West, the State where many fire departments consistently do not report fires to NFIRS is California. Other States that are indicating a lack of reporting in certain size communities include Arizona, Colorado, Montana, and New Mexico.

Table 5. Percent of Census Departments Reporting Fires to NFIRS in 2004-2006 by the 2003 RUC Code within Region

2003 RUC Code	Census-NFIRS Departments	Census-nonNFIRS Departments	Total Departments	Percent of Departments Reporting Fires
MIDWEST				
1	1,340	108	1,448	92.5
2	880	129	1,009	87.2
3	943	138	1,081	87.2
4	663	64	727	91.2
5	280	52	332	84.3
6	1,110	217	1,327	83.6
7	808	187	995	81.2
8	288	90	378	76.2
9	628	211	839	74.9
Total	6,940	1,196	8,136	85.3
NORTHEAST				
1	1,505	546	2,051	73.4
2	986	321	1,307	75.4
3	303	113	416	72.8
4	398	318	716	55.6
5	99	29	128	77.3
6	299	193	492	60.8
7	134	83	217	61.8
8	28	33	61	45.9
9	16	9	25	64.0
Total	3,768	1,645	5,413	69.6
SOUTH				
1	1,219	355	1,574	77.4
2	1,119	353	1,472	76.0
3	904	307	1,211	74.6
4	620	200	820	75.6
5	193	63	256	75.4
6	1,256	572	1,828	68.7
7	647	229	876	73.9
8	298	156	454	65.6
9	298	177	475	62.7
Total	6,554	2,412	8,966	73.1
WEST				
1	411	194	605	67.9
2	343	147	490	70.0
3	304	131	435	69.9
4	213	111	324	65.7
5	137	64	201	68.2
6	215	115	330	65.2
7	324	161	485	66.8
8	93	37	130	71.5
9	128	64	192	66.7
Total	2,168	1,024	3,192	67.9

Source: USFA's National Fire Department Census and 2004-2006 NFIRS data.

Census Fire Departments by 2003 RUC Code

Table 6 shows the 2003 RUC Code distributions for the Census-NFIRS and Census-nonNFIRS groups at the national level. In observing the table, it is shown that the percentage distribution for

the 2003 RUC Code categories of census departments that did not report fires to NFIRS is quite similar to that of census departments that reported fires to NFIRS. This implies that fire departments that do not report to NFIRS are located in similarly sized communities as those departments that report to NFIRS.

The absolute differences in percentages for each of the 2003 RUC Code categories do not vary by more than 2.0 percent, except for category 1 where the absolute difference is 3.8 percent and in category 6 where the absolute difference is 2.7 percent. Where the 2003 RUC Code is 1, approximately 79 percent of the census departments report fires to NFIRS.

In the metro areas, the percentages of NFIRS reporting departments are slightly higher than those not reporting. This may be due, in part, to the fact that fire departments in metro areas are generally large, career departments, with the resources needed to report to NFIRS. Additionally, career departments use their NFIRS data to justify the need for increases in personnel and budget requirements.

For each of the six nonmetro categories, the percentages of Census-nonNFIRS departments are slightly higher for each 2003 RUC Code category than for the Census-NFIRS departments except for the category where the 2003 RUC Code is 5. This can be expected since most departments in these counties are generally smaller, volunteer fire departments where resources and budgets are often scarce.

Table 6. Census-NFIRS and Census-nonNFIRS Departments by the 2003 RUC Code

2003 RUC Code	Census-NFIRS		Census-nonNFIRS	
	Departments	Percent	Departments	Percent
1	4,475	23.0	1,203	19.2
2	3,328	17.1	950	15.1
3	2,454	12.6	689	11.0
4	1,894	9.7	693	11.0
5	709	3.6	208	3.3
6	2,880	14.8	1,097	17.5
7	1,913	9.8	660	10.5
8	707	3.6	316	5.0
9	1,070	5.5	461	7.3
Total	19,430	100.0	6,277	100.0

Source: USFA’s National Fire Department Census and 2004-2006 NFIRS data.

Note: Total percents may not add to 100 due to rounding.

Census Fire Departments by 2003 RUC Code within Region

Table 7 shows the frequency and percentage distributions of departments by the 2003 RUC Code within region for the Census-NFIRS and Census-nonNFIRS groups, respectively.

Midwest

Approximately 46 percent of Census-NFIRS departments in the Midwest are located in metro counties, whereas 31 percent of Census-nonNFIRS departments are located in metro counties. NFIRS has a high reporting rate of fire departments in metro counties in the Midwest.

Nineteen percent of Census-NFIRS departments are located in metro counties with a population of 1 million or more (2003 RUC Code is 1), and 9 percent of Census-nonNFIRS departments are found to be located in this category. This difference is due to the high rate of fire departments reporting to NFIRS in the metro areas of the Midwest.

The highest proportions of Census-nonNFIRS departments in the Midwest are found to be in nonmetro counties adjacent to a metro area with an urban population of 2,500 to 19,999 (2003 RUC Code is 6) and in completely rural counties not adjacent to a metro area (2003 RUC Code is 9). These departments are the small, volunteer departments that generally have limited personnel and budgets needed for reporting.

Northeast

Thirty-three percent of Census-nonNFIRS departments, the highest percentage of nonreporting departments in the Northeast, are located in counties in metro areas with a population of 1 million or more (2003 RUC Code is 1). Additionally, high percentages of Census-nonNFIRS departments are also concentrated in counties in metro areas with a population of 250,000 to 1 million (2003 RUC Code is 2) and in nonmetro counties adjacent to a metro area with an urban population of 20,000 or more (2003 RUC Code is 4). Nineteen percent of Census-nonNFIRS departments are located in nonmetro counties adjacent to a metro area with an urban population of 20,000 or more (2003 RUC Code is 4), and 11 percent of Census-NFIRS departments are found to be in this category.

South

In the South, the percentage distributions for both the Census-NFIRS departments and the Census-nonNFIRS departments are similar. Approximately 24 percent of the Census-nonNFIRS departments in the South are located in nonmetro counties adjacent to a metro area with an urban population of 2,500 to 19,999 (2003 RUC Code is 6). Approximately 89 percent of these departments consist of 100 percent volunteer firefighters.

Approximately 29 percent of Census-nonNFIRS departments are located in metro counties where the population is 250,000 or more (2003 RUC Codes are 1 and 2), about 15 percent in each of these 2003 RUC Code categories. Although there are a large number of nonreporting departments in these metro counties in the South, the overall NFIRS reporting rate for these two RUC Code categories is about 77 percent.

West

In the West, the percentage distributions for both the Census-NFIRS departments and the Census-nonNFIRS departments are quite similar. The absolute difference in percentages for all categories between the two groups is less than 1.5 percent.

Overall, 46 percent of Census-nonNFIRS departments are located in metro counties (2003 RUC Codes are 1, 2, and 3). Nineteen percent, the largest percentage, of nonreporting fire departments in the West are located in metro counties where the population is 1 million or more (2003 RUC Code is 1).

**Table 7. Percent of Census-NFIRS and Census-nonNFIRS
Departments by the 2003 RUC Code within Region**

2003 RUC Code	Census-NFIRS		Census-nonNFIRS	
	Departments	Percent	Departments	Percent
MIDWEST				
1	1,340	19.3	108	9.0
2	880	12.7	129	10.8
3	943	13.6	138	11.5
4	663	9.6	64	5.4
5	280	4.0	52	4.3
6	1,110	16.0	217	18.1
7	808	11.6	187	15.6
8	288	4.1	90	7.5
9	628	9.0	211	17.6
Total	6,940	100.0	1,196	100.0
NORTHEAST				
1	1,505	39.9	546	33.2
2	986	26.2	321	19.5
3	303	8.0	113	6.9
4	398	10.6	318	19.3
5	99	2.6	29	1.8
6	299	7.9	193	11.7
7	134	3.6	83	5.0
8	28	0.7	33	2.0
9	16	0.4	9	0.5
Total	3,768	100.0	1,645	100.0
SOUTH				
1	1,219	18.6	355	14.7
2	1,119	17.1	353	14.6
3	904	13.8	307	12.7
4	620	9.5	200	8.3
5	193	2.9	63	2.6
6	1,256	19.2	572	23.7
7	647	9.9	229	9.5
8	298	4.5	156	6.5
9	298	4.5	177	7.3
Total	6,554	100.0	2,412	100.0
WEST				
1	411	19.0	194	18.9
2	343	15.8	147	14.4
3	304	14.0	131	12.8
4	213	9.8	111	10.8
5	137	6.3	64	6.3
6	215	9.9	115	11.2
7	324	14.9	161	15.7
8	93	4.3	37	3.6
9	128	5.9	64	6.3
Total	2,168	100.0	1,024	100.0

Source: USFA's National Fire Department Census and 2004-2006 NFIRS data.

Note: Total percents may not add to 100 due to rounding.

NFIRS Fire Departments Not Registered with the Census

This part of the analysis focuses on the departments that reported fires to NFIRS during the years 2004 through 2006, but were not registered with USFA's National Fire Department Census. As previously stated, there were 3,960 fire departments that reported fires to NFIRS, but did not register with the census (NFIRS-nonCensus).

Methodology

NFIRS-nonCensus departments located in U.S. Territories or that had a State code of 'NA' (Native America) were excluded from the analyses. There were 14 departments excluded due to these criteria leaving 3,946 departments remaining. Before analyzing the NFIRS-nonCensus departments, FIPS State codes, FIPS County codes and the 2003 RUC Codes were assigned to each department where address and zip code data were available from the NFIRS fire department header file. There were 885 departments with missing address information. These departments were not assigned a 2003 RUC Code.

Fire departments were also assigned a department type based on NFIRS fire department personnel data. Of the 3,946 NFIRS-nonCensus departments being analyzed, only 1,993 were assigned a department type. There were 1,953 fire departments where the data fields for the numbers of career, volunteer, and paid per call firefighters all had values of zero. These departments could not be assigned a department type and are, therefore, excluded from any analyses involving department type.

NFIRS Fire Departments Not Registered with the Census by 2003 RUC Code

Table 8 shows the frequency count and percentage of NFIRS-nonCensus departments by the 2003 RUC Code. Approximately 42 percent of the NFIRS-nonCensus departments are located in metro counties (2003 RUC Codes are 1, 2, and 3). Approximately 17 percent of NFIRS reporting departments not registered with the census are located in counties in metro areas with a population of 1 million or more (2003 RUC Code is 1), and another 18 percent are located in nonmetro counties that are adjacent to a metro area with urban populations between 2,500 and 19,999 people (2003 RUC Code is 6).

The lowest percentages of NFIRS reporting departments, not registered with the census, are found in nonmetro counties not adjacent to a metro area with urban populations of 20,000 or more (2003 RUC Code is 5) and in nonmetro counties adjacent to a metro area with completely rural populations (2003 RUC Code is 8).

Table 8. NFIRS-nonCensus Departments by the 2003 RUC Code

2003 RUC Code	NFIRS-nonCensus Departments	Percent
1	535	17.5
2	379	12.4
3	367	12.0
4	297	9.7
5	119	3.9
6	547	17.9
7	392	12.8
8	153	5.0
9	272	8.9
Total	3,061	100.0

Source: USFA's National Fire Department Census and 2004-2006 NFIRS data.
Notes: There were 885 NFIRS departments that were not assigned a 2003 RUC Code. Total percent may not add to 100 due to rounding.

NFIRS Fire Departments Not Registered with the Census by 2003 RUC Code, Region, and Department Type

Table 9 displays the numbers and percentages of NFIRS departments not registered with the census by the 2003 RUC Code and region. Table I-6 in Appendix I provides the numbers of NFIRS-nonCensus departments by the 2003 RUC Code and department type. Table I-7 in Appendix I provides the numbers of NFIRS-nonCensus departments by the 2003 RUC Code and department type for each region of the country. Table II-9 through Table II-12 in Appendix II show the numbers of NFIRS-nonCensus departments by State within the 2003 RUC Code category for each region.

Midwest

Ninety-eight percent of the NFIRS-nonCensus departments in the Midwest are volunteer or mostly volunteer departments. Of these, 94 percent are classified as 100 percent volunteer.

In the Midwest, it is shown that 35 percent of the NFIRS-nonCensus departments are concentrated in counties with urban populations of 2,500 to 19,999 (2003 RUC Codes are 6 and 7). Twenty-three percent of the departments in these two RUC Code categories are located in Kansas.

An additional 30 percent of departments in the Midwest are located in metro counties (2003 RUC Codes are 1, 2, and 3). Approximately 22 percent of the NFIRS-nonCensus departments in metro counties are located in Indiana, with an additional 14 percent located in Ohio.

The lowest percentages of NFIRS-nonCensus departments in the Midwest are located in nonmetro counties not adjacent to a metro area with an urban population of 20,000 or more (2003 RUC Code is 5) and in completely rural counties adjacent to a metro area (2003 RUC Code is 8).

Northeast

In the Northeast, 96 percent of the NFIRS-nonCensus departments are classified as volunteer or mostly volunteer departments. Ninety-one percent of these departments are comprised of all volunteer firefighters.

Seventy percent of NFIRS fire departments not registered with the census in the Northeast are located in metro counties (2003 RUC Codes are 1, 2, and 3) with approximately 37 percent of these departments located in counties with a population of 1,000,000 or more (2003 RUC Code is 1). Forty percent of the departments in the category where the 2003 RUC Code is 1 are located in NJ with an additional 37 percent found in Pennsylvania. Overall, for the metro counties (2003 RUC Codes are 1, 2, and 3), 36 percent of the NFIRS-nonCensus departments are located in Pennsylvania, 28 percent are located in New Jersey, and another 24 percent are located in New York.

In the Northeast region, the lowest percentages of NFIRS-nonCensus departments are found to be in counties that are considered to be completely rural (2003 RUC Codes are 8 and 9) and in counties not adjacent to a metro area with urban populations of 20,000 or more (2003 RUC Code is 5). There are only nine NFIRS-nonCensus departments in the completely rural counties (2003 RUC Codes are 8 and 9), five of which are located in Vermont.

South

In the Southern region, 92 percent of the NFIRS-nonCensus departments are classified as volunteer or mostly volunteer departments. Eighty-seven percent of these departments are comprised of all volunteer firefighters.

The NFIRS-nonCensus departments in the South follow a similar pattern as those in the Northeast with the highest concentration of departments located in metro counties (2003 RUC Codes are 1, 2, and 3) and the lowest found in completely rural counties (2003 RUC Codes are 8 and 9). Forty-four percent of Southern departments are located in metro counties whereas 11 percent are found in the rural counties. Of the NFIRS-nonCensus departments in metro counties (2003 RUC Codes are 1, 2, and 3) in the South, approximately 17 percent are located in Maryland, 15 percent are located in Texas, and another 12 percent are located in Virginia. In completely rural counties or where the urban population is less than 2,500 (2003 RUC Codes are 8 and 9), approximately 14 percent of the NFIRS-nonCensus departments are located in Mississippi, 13 percent are located in Arkansas, and about 12 percent each are located in Kentucky, Tennessee, and Virginia.

In the South, an additional 32 percent of NFIRS-nonCensus departments are located in nonmetro counties with urban populations of 2,500 to 19,999 (2003 RUC Codes are 6 and 7), with about 21 percent of departments located in counties adjacent to metro area (2003 RUC Code is 6). Approximately 56 percent of the departments in these two RUC Code categories are located in 5 of the 17 Southern States: Mississippi (13 percent), Arkansas (12 percent), Texas (12 percent), Kentucky (11 percent), and Tennessee (9 percent).

West

Ninety-seven percent of the NFIRS-nonCensus departments in the West are classified as volunteer or mostly volunteer departments. Of these departments, 91 percent are solely volunteer.

In the West, 35 percent of NFIRS-nonCensus departments are located in nonmetro counties with an urban population of 2,500 to 19,999 (2003 RUC Codes are 6 and 7). Of these departments, 17 percent are located in Idaho, 16 percent in Montana, and an additional 12 percent in New Mexico.

Twenty-nine percent of NFIRS-nonCensus departments are located in metro counties (2003 RUC Codes are 1, 2, and 3) in the West. In each of these three RUC Code categories, California has the highest percentage of NFIRS-nonCensus departments.

Fifteen percent of departments are located in nonmetro counties with urban populations of 20,000 or more (2003 RUC Codes are 4 and 5). Twenty-four percent of the NFIRS-nonCensus departments in nonmetro counties adjacent to a metro area with an urban population of 20,000 or more (2003 RUC Code is 4) are located in Washington. An additional 45 percent of departments in this 2003 RUC Code category are found in Idaho (15 percent), New Mexico (15 percent), and Oregon (15 percent). In counties not adjacent to a metro area with an urban population of 20,000 or more (2003 RUC Code is 5), 45 percent of the NFIRS-nonCensus departments are located in Montana and another 26 percent are found in Oregon.

Table 9. NFIRS-nonCensus Departments by the 2003 RUC Code and Region

2003 RUC Code	Midwest		Northeast		South		West		Total	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
1	91	10.0	175	36.8	241	19.2	28	6.7	535	17.5
2	84	9.2	110	23.2	147	11.7	38	9.1	379	12.4
3	101	11.1	48	10.1	161	12.8	57	13.7	367	12.0
4	79	8.7	61	12.8	124	9.9	33	7.9	297	9.7
5	42	4.6	6	1.3	40	3.2	31	7.4	119	3.9
6	164	18.0	48	10.1	269	21.4	66	15.8	547	17.9
7	154	16.9	18	3.8	138	11.0	82	19.7	392	12.8
8	47	5.2	3	0.6	73	5.8	30	7.2	153	5.0
9	149	16.4	6	1.3	65	5.2	52	12.5	272	8.9
Total	911	100.0	475	100.0	1,258	100.0	417	100.0	3,061	100.0

Source: USFA's National Fire Department Census and 2004-2006 NFIRS data.

Notes: There were 885 NFIRS departments that were not assigned a 2003 RUC Code. Total percents may not add to 100 due to rounding.

Maps

Figure 1 illustrates fire departments in the United States reporting fires to NFIRS (red icons) from 2004 to 2006 versus nonreporting departments (blue icons). Pennsylvania, by far, shows the largest incidence of NFIRS nonreporting departments in the country. As previously noted, Pennsylvania recently began reporting incidents to NFIRS, and now approximately 41 percent of Pennsylvania's departments report fires to NFIRS. Figure 1 also shows a large number of nonreporting departments in Alabama.

Figures 2 through 5 show NFIRS reporting departments (NFIRS-nonCensus and Census-NFIRS) versus nonreporting departments (Census-nonNFIRS) for the Midwest, Northeast, South, and West regions of the country respectively.

From Figure 2, it can be observed that fire departments across the Midwestern States are showing strong participation in reporting fires to NFIRS. Fire departments from within each State in the Midwest, as well as in all geographic areas of each State, are shown to be reporting to NFIRS.

Figure 3 reemphasizes that Pennsylvania and New York have many nonreporting departments. Rhode Island is also showing a large number of departments that did not report fires to NFIRS. This may be due to the fact that the State of Rhode Island did not submit fire incident reports to NFIRS in 2005, but they are now currently reporting.

In the South region (Figure 4), Alabama has the largest number of nonreporting NFIRS departments. There is also a high incidence of nonreporting in Oklahoma and Georgia. In some regional areas of Texas, there appear to be large numbers of departments not reporting to NFIRS.

Figure 5 shows that of the States in the West, California and Arizona have large numbers of departments that do not report to NFIRS as compared to the numbers of reporting departments in those States. It should also be noted that Arizona recently started reporting to NFIRS in 2001.

Figure 1. NFIRS Departments Reporting Fires (2004-2006)

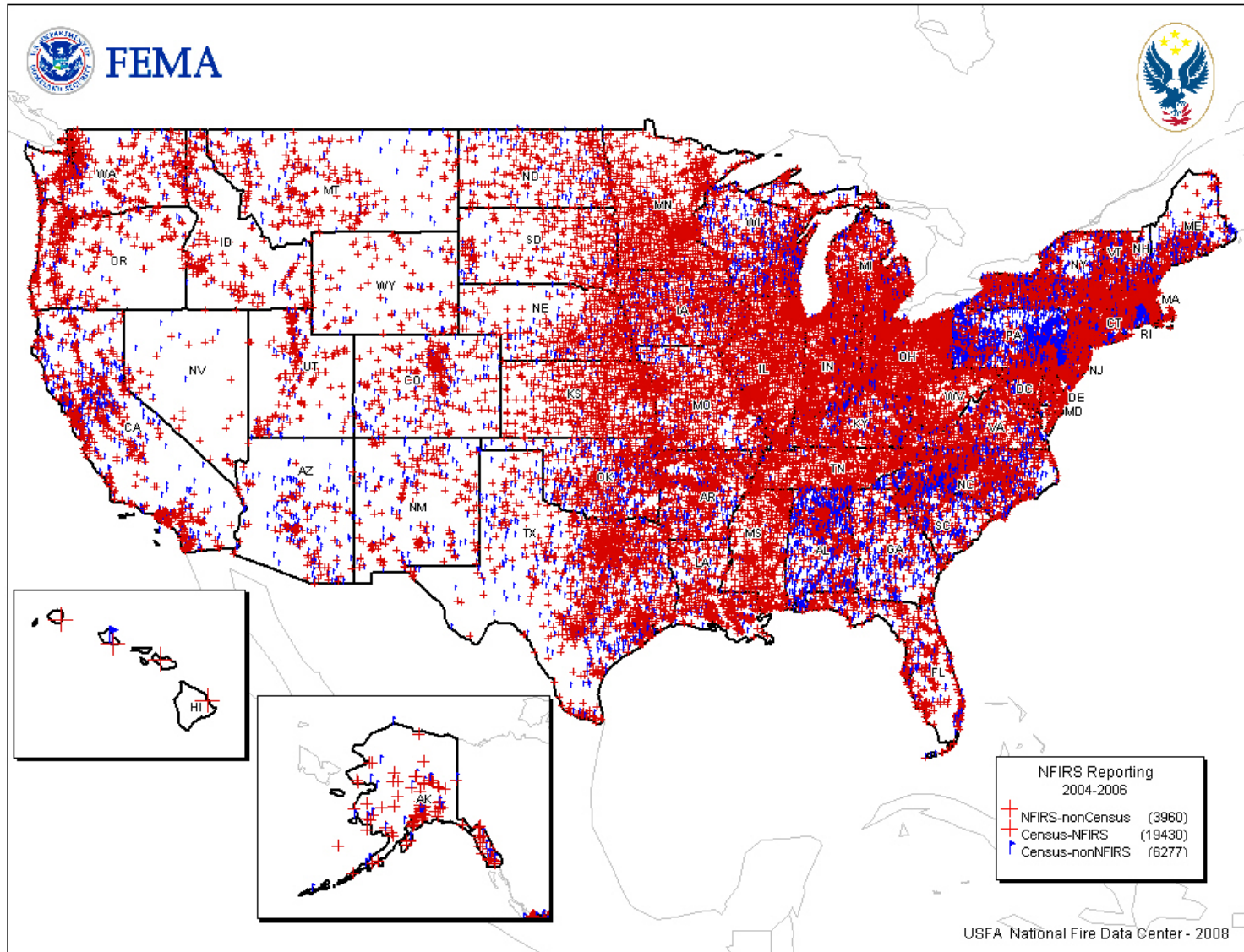


Figure 2. NFIRS Departments Reporting Fires (2004-2006):
Midwest Region

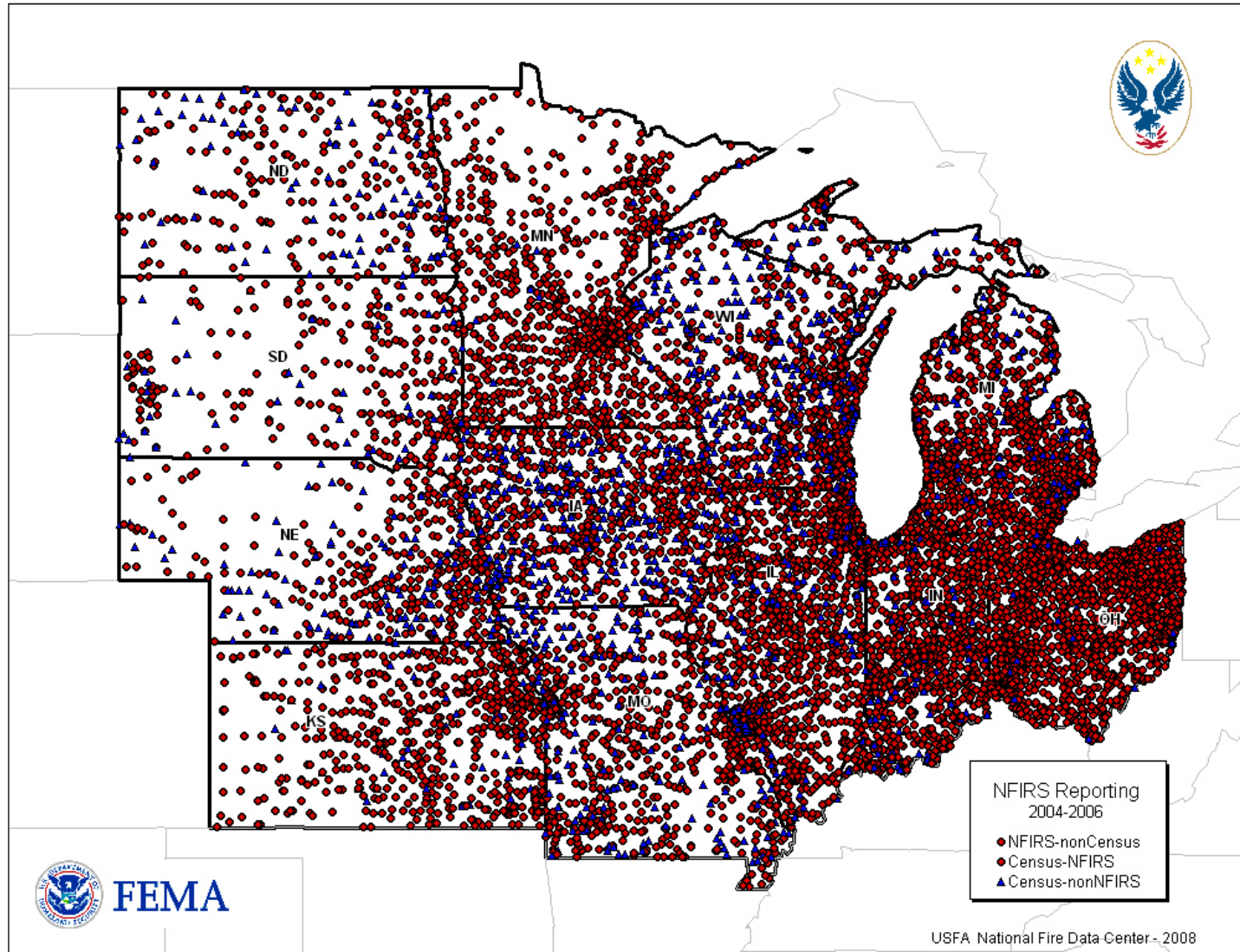


Figure 3. NFIRS Departments Reporting Fires (2004-2006):
Northeast Region

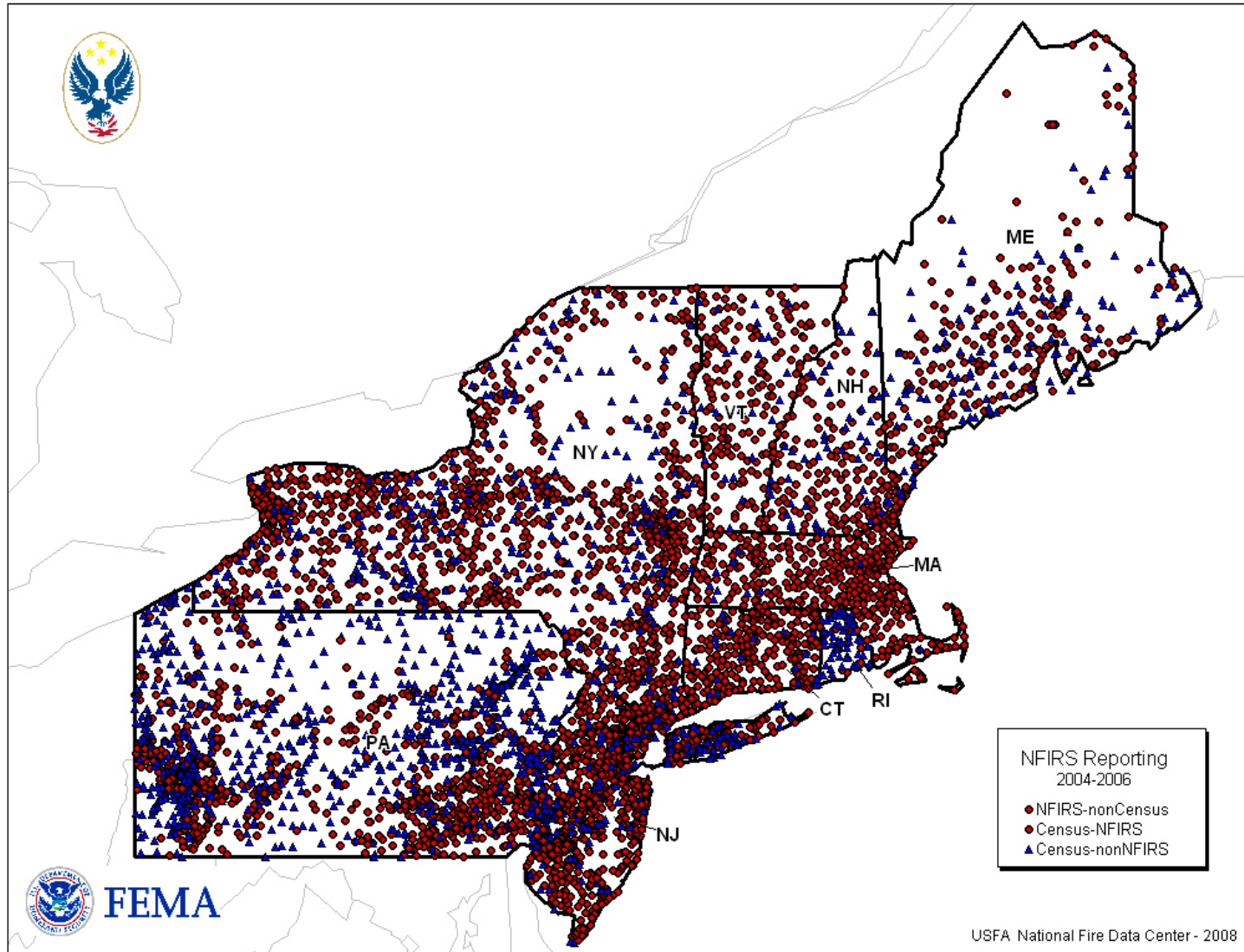


Figure 4. NFIRS Departments Reporting Fires (2004-2006):
South Region

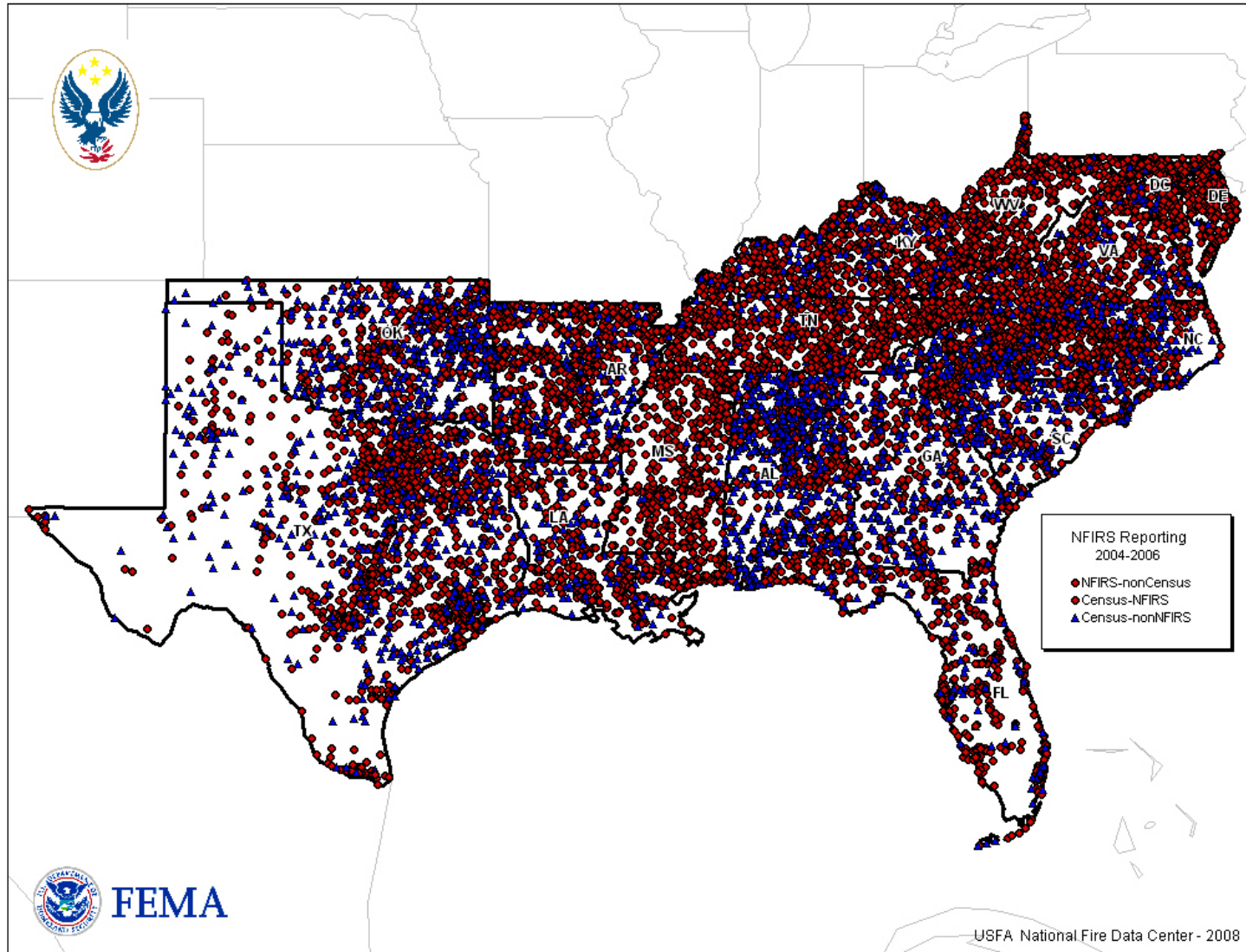
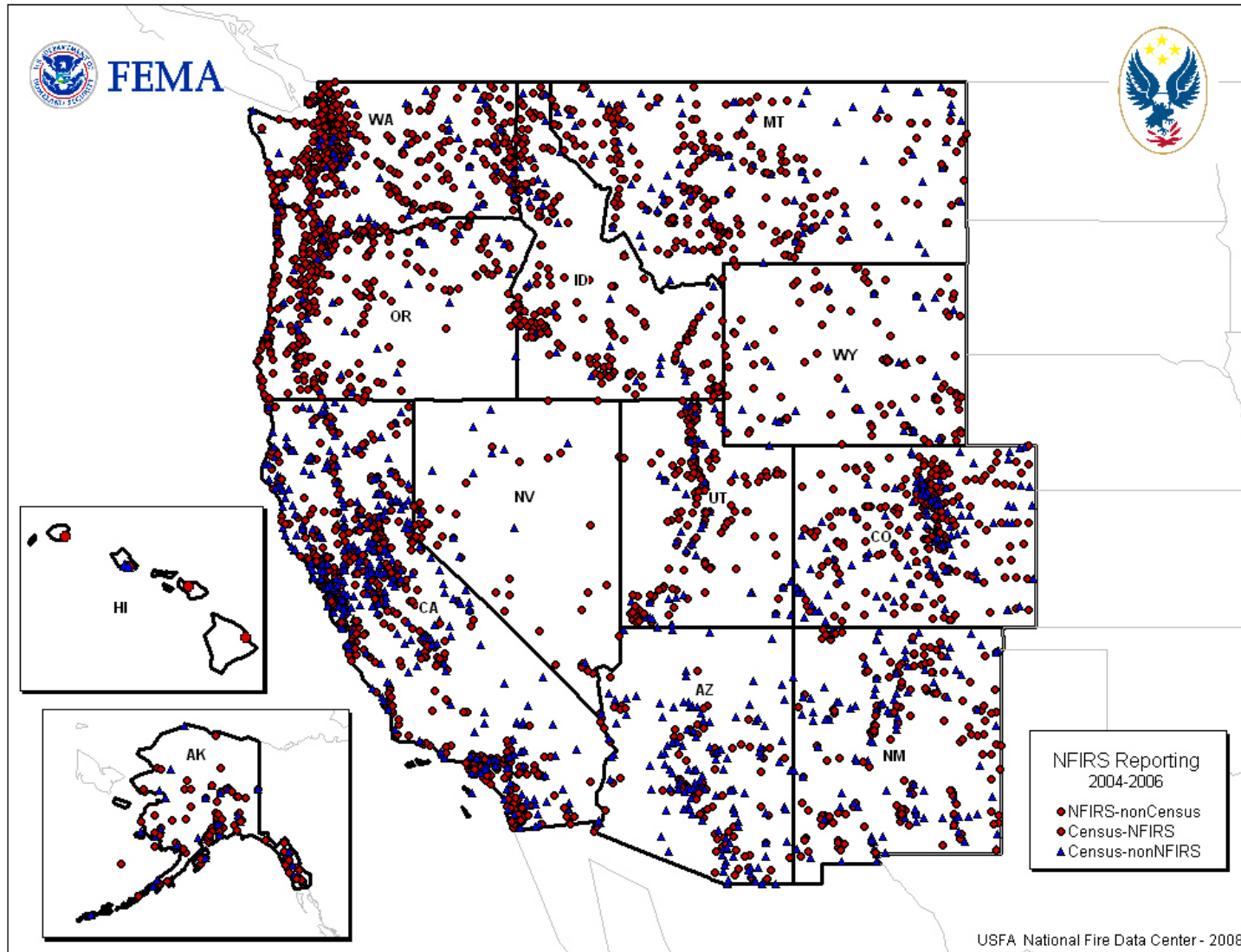


Figure 5. NFIRS Departments Reporting Fires (2004-2006):
West Region



Conclusion

Although NFPA estimates that there are approximately 30,400 fire departments in the U.S., there were a total of 22,491 fire departments reporting fires to NFIRS (Census-NFIRS and NFIRS-nonCensus) during the years 2004 through 2006 that were analyzed as part of this study. An additional 885 NFIRS-nonCensus departments did not have sufficient address information to be included in the RUC Code analyses. From this, it can be estimated that there are approximately 7,000 additional departments that do not report fires to NFIRS. Through the use of the National Fire Department Census database, it is known that there are an existing 6,277 fire departments that did not report fires to NFIRS. If the NFIRS departments are analyzed together with the Census-nonNFIRS departments, the characteristics of nearly all known fire departments in the U.S. can be observed.

Reporting Rates

In conclusion, it is necessary to look at the percent of all departments reporting fires to NFIRS for the years 2004 to 2006 based on the NFIRS-nonCensus, the Census-NFIRS, and the Census-nonNFIRS departments collectively. Table 10 shows the overall percent of departments reporting fires to NFIRS for each 2003 RUC Code category. Overall, the percentages of fire departments reporting to NFIRS range from 73 percent in counties adjacent to a metro area that are completely rural or have an urban population less than 2,500 (2003 RUC Code is 8) to 81 percent in counties in metro areas with a population of 1 million or more (2003 RUC Code is 1).

In the metro counties (2003 RUC Codes are 1, 2, and 3), the percentages of departments reporting are approximately 80 to 81 percent. In nonmetro counties, the reporting rates range from 73 to 80 percent.

On average across the country, approximately 78 percent of the identified fire departments report fires to NFIRS. Because of the high reporting rates nationwide, USFA believes that NFIRS is representative of fire departments across the country. In fire data analyses at the national level, USFA uses at least three years of data to account for fluctuations in fire department participation each year.

Table 10. Overall Percent of Fire Departments Reporting Fires to NFIRS by the 2003 RUC Code (2004-2006)

2003 RUC Code	NFIRS-nonCensus Departments	Census-NFIRS Departments	Total NFIRS Departments	Census-nonNFIRS Departments	Total Departments	Percent of Departments Reporting Fires
1	535	4,475	5,010	1,203	6,213	80.6
2	379	3,328	3,707	950	4,657	79.6
3	367	2,454	2,821	689	3,510	80.4
4	297	1,894	2,191	693	2,884	76.0
5	119	709	828	208	1,036	79.9
6	547	2,880	3,427	1,097	4,524	75.8
7	392	1,913	2,305	660	2,965	77.7
8	153	707	860	316	1,176	73.1
9	272	1,070	1,342	461	1,803	74.4
Total	3,061	19,430	22,491	6,277	28,768	78.2

Source: USFA's National Fire Department Census and 2004-2006 NFIRS data.

Note: There were 885 NFIRS departments that were not assigned a 2003 RUC Code.

Table 11 illustrates fire department reporting rates for each 2003 RUC Code category within region. Regionally, the reporting rates range from approximately 72 percent in both the Northeast and West to 87 percent in the Midwest.

Midwest

The Midwest region shows extremely high percentages of reporting, ranging from approximately 79 percent in nonmetro counties with an urban population less than 2,500 (2003 RUC Codes are 8 and 9) to 93 percent in metro areas with a population of 1 million or more (2003 RUC Code is 1). From this, it can be concluded that fire departments in the Midwest region of the United States are well represented in NFIRS.

Northeast

Percentages of departments reporting fires to NFIRS in the Northeast range from 48 percent in completely rural counties adjacent to a metro area (2003 RUC Code is 8) to 78 percent in counties not adjacent to a metro area with urban populations of 20,000 or more (2003 RUC Code is 5). In addition to nonmetro counties where the 2003 RUC Code is 5, metro counties (2003 RUC Codes are 1, 2, 3) in the Northeast also show high reporting rates ranging from 76 to 77 percent. For all 2003 RUC Code categories in the Northeast where the reporting rate is less than 70 percent (2003 RUC Codes are 4, 6, 7, and 8), it can be noted from Table II-2 in Appendix II that fire departments located in Pennsylvania and New York contribute to these lower reporting rates.

Although the Northeast shows some of the lowest reporting rates by the 2003 RUC Code categories, the overall reporting rate for this region is 72 percent. USFA considers this to be a high reporting rate, yet understands that some fire departments in particular States in this region are not reporting.

South

In the South, the NFIRS reporting rates range from 67 percent in nonmetro counties not adjacent to a metro area where the population is less than 2,500 (2003 RUC Code is 9) to 80 percent in metro counties with a population of 1 million or more (2003 RUC Code is 1). For five out of the nine 2003 RUC Code categories in the South, the reporting rates are in the high seventies. These high reporting rates imply that departments reporting fires in the South are well represented in NFIRS.

West

Although on average, the reporting rates in both the Northeast and West regions are approximately 72 percent, the reporting rates in general in the West are higher in nonmetro counties than those in the Northeast. In metro counties, the reporting rates in the West are slightly lower than those in the Northeast. The percentages of departments reporting fires in the West range from 69 percent in metro counties with a population of 1 million or more (2003 RUC Code is 1) and in nonmetro counties adjacent to a metro area with urban populations of 20,000 or more (2003 RUC Code is 4) to 77 percent in counties adjacent to a metro area that are considered completely rural (2003 RUC Code is 8). As previously noted, California is one State in the West that continually has many fire departments that do not report to NFIRS.

Although the West has the least number of fire departments of all the regions of the country, USFA considers the reporting rates in the West to be quite high. Despite California's history in reporting to NFIRS, departments in the West of all types and serving communities of all sizes are well represented in NFIRS.

Table 11. Overall Percent of Fire Departments Reporting Fires to NFIRS by the 2003 RUC Code within Region (2004-2006)

2003 RUC Code	NFIRS-nonCensus Departments	Census-NFIRS Departments	Total NFIRS Departments	Census-nonNFIRS Departments	Total Departments	Percent of Departments Reporting
MIDWEST						
1	91	1,340	1,431	108	1,539	93.0
2	84	880	964	129	1,093	88.2
3	101	943	1,044	138	1,182	88.3
4	79	663	742	64	806	92.1
5	42	280	322	52	374	86.1
6	164	1,110	1,274	217	1,491	85.4
7	154	808	962	187	1,149	83.7
8	47	288	335	90	425	78.8
9	149	628	777	211	988	78.6
Total	911	6,940	7,851	1,196	9,047	86.8
NORTHEAST						
1	175	1,505	1,680	546	2,226	75.5
2	110	986	1,096	321	1,417	77.3
3	48	303	351	113	464	75.6
4	61	398	459	318	777	59.1
5	6	99	105	29	134	78.4
6	48	299	347	193	540	64.3
7	18	134	152	83	235	64.7
8	3	28	31	33	64	48.4
9	6	16	22	9	31	71.0
Total	475	3,768	4,243	1,645	5,888	72.1
SOUTH						
1	241	1,219	1,460	355	1,815	80.4
2	147	1,119	1,266	353	1,619	78.2
3	161	904	1,065	307	1,372	77.6
4	124	620	744	200	944	78.8
5	40	193	233	63	296	78.7
6	269	1,256	1,525	572	2,097	72.7
7	138	647	785	229	1,014	77.4
8	73	298	371	156	527	70.4
9	65	298	363	177	540	67.2
Total	1,258	6,554	7,812	2,412	10,224	76.4
WEST						
1	28	411	439	194	633	69.4
2	38	343	381	147	528	72.2
3	57	304	361	131	492	73.4
4	33	213	246	111	357	68.9
5	31	137	168	64	232	72.4
6	66	215	281	115	396	71.0
7	82	324	406	161	567	71.6
8	30	93	123	37	160	76.9
9	52	128	180	64	244	73.8
Total	417	2,168	2,585	1,024	3,609	71.6

Source: USFA's National Fire Department Census and 2004-2006 NFIRS data.

Notes: There were 885 NFIRS departments that were not assigned a 2003 RUC Code. Total percents may not add to 100 due to rounding.

Fire Departments by 2003 RUC Code

Table 12 shows the 2003 RUC Code distributions for the NFIRS-nonCensus, Census-NFIRS, Total NFIRS, Census-nonNFIRS, and Total Departments at the national level. The table illustrates that the percentage distribution of the NFIRS departments is extremely similar to that of all known departments. In fact, by including the NFIRS-nonCensus departments with the Census-NFIRS departments, the absolute differences between the total NFIRS percentage distribution and overall percentage distribution of the total known fire departments have decreased from those of Table 6. The absolute differences in percentages for each 2003 RUC Code category do not vary by more than .7 percent (less than 1 percent). This provides additional evidence that fire departments not reporting to NFIRS are located in similarly sized communities as those departments that do report and strongly implies that nonreporting departments do not negatively impact the representativeness of NFIRS.

Table 12. Overall Percent of NFIRS and Total Departments by the 2003 RUC Code (2004-2006)

2003 RUC Code	NFIRS-nonCensus Departments	Census-NFIRS Departments	Total NFIRS Departments	Total NFIRS Percent	Census-nonNFIRS Departments	Total Departments	Total Departments Percent
1	535	4,475	5,010	22.3	1,203	6,213	21.6
2	379	3,328	3,707	16.5	950	4,657	16.2
3	367	2,454	2,821	12.5	689	3,510	12.2
4	297	1,894	2,191	9.7	693	2,884	10.0
5	119	709	828	3.7	208	1,036	3.6
6	547	2,880	3,427	15.2	1,097	4,524	15.7
7	392	1,913	2,305	10.2	660	2,965	10.3
8	153	707	860	3.8	316	1,176	4.1
9	272	1,070	1,342	6.0	461	1,803	6.3
Total	3,061	19,430	22,491	100.0	6,277	28,768	100.0

Source: USFA's National Fire Department Census and 2004-2006 NFIRS data.

Note: There were 885 NFIRS departments that were not assigned a 2003 RUC Code. Total percents may not add to 100 due to rounding.

Fire Departments by 2003 RUC Code within Region

Table 13 shows the distributions of departments by the 2003 RUC Code within region for the NFIRS-nonCensus, Census-NFIRS, Total NFIRS, Census-nonNFIRS, and Total Departments, respectively.

Midwest

In looking at Table 13, it is observed that the absolute differences in percentages between the Total NFIRS departments and the Total Departments in the Midwest vary by 1.2 percent or less, implying that NFIRS nonreporting departments in this region are located in similar geographic areas as those that report to NFIRS. Forty-four percent of all NFIRS departments in the Midwest are located in metro counties (2003 RUC Codes are 1, 2, and 3), and 42 percent of all known

departments in the Midwest are also found in this category. This is due to the high rate of fire departments reporting to NFIRS in the metro counties of the Midwest. For nonmetro counties with lower percentages of Total NFIRS departments (2003 RUC Codes are 5 and 8), it is shown that the percentages of all known departments in those counties is also low.

Northeast

Absolute differences in percentage distributions between the Total NFIRS departments and the Total Departments in the Northeast vary by less than 2.5 percent. Although there are certain States in the Northeast where some fire departments are not reporting to NFIRS, USFA considers NFIRS reporting departments in this region to be representative of all known departments in the Northeast for each of the 2003 RUC Code categories.

In the Northeast, the largest percentages of NFIRS reporting departments are found in metro counties where the population is 250,000 or more (2003 RUC Codes are 1 and 2). Forty percent of NFIRS reporting departments are found in metro areas with a population of 1 million or more (2003 RUC Code is 1), and an additional 26 percent of NFIRS departments are located in metro counties with populations between 250,000 and 1 million (2003 RUC Code is 2). The lowest percentages of NFIRS reporting departments in the Northeast are found in nonmetro counties where the urban population is less than 2,500 (2003 RUC Codes are 8 and 9). This is also true of all known departments in the Northeast.

South

In the South, the percentage distributions for both the NFIRS departments and the Total Departments are quite similar. The absolute difference between the percentage distributions of these two groups is 1 percent or less for each of the 2003 RUC Code categories.

The largest percentages of NFIRS reporting departments are found in metro counties (2003 RUC Codes are 1, 2, and 3) and in nonmetro counties adjacent to a metro area with an urban population of 2,500 to 19,999 (2003 RUC Code is 6). Forty-nine percent of NFIRS reporting departments are located in the metro counties (2003 RUC Codes are 1, 2, and 3), with an additional 20 percent found in nonmetro counties adjacent to a metro area with an urban population of 2,500 to 19,999 (2003 RUC Code is 6). Only 3 percent of reporting departments are located in nonmetro counties not adjacent to a metro area with an urban population of 20,000 or more (2003 RUC Code is 5).

West

In the West, the percentage distributions for both the NFIRS departments and the Census-nonNFIRS departments are very similar. The absolute differences in percentages between the Total NFIRS departments and the Total Departments in the West vary by 0.5 percent or less. This implies that fire departments that report to NFIRS in the West region are located in similarly sized communities as those departments that do not report to NFIRS.

Seventeen percent of NFIRS reporting departments in the West are located in metro counties with a population of 1 million or more (2003 RUC Code is 1). Overall, 46 percent of reporting departments are found in metro counties (2003 RUC Codes are 1, 2, 3) in the West. Five percent of reporting departments are located in completely rural counties adjacent to a metro area (2003 RUC Code is 8). Comparable percentages for each of these 2003 RUC Code categories can be found for the overall distribution of known fire departments.

It is important to reiterate that USFA along with other Federal agencies do not use NFIRS data to derive State level fire estimates. NFIRS data are used to show the fire problem at the national level. Because the findings in USFA's *NFIRS Representativeness Study* show high reporting rates at the national and regional levels, fire departments across the country, whether they be career, volunteer, or protect communities of varying sizes, are well represented in NFIRS. Therefore, USFA concludes that NFIRS reporting departments are representative of the universe of all fire departments in the U.S. Additionally, there is no bias in NFIRS due to department nonresponse at the national level.

**Table 13. Overall Percent of NFIRS and Total Departments
by the 2003 RUC Code within Region (2004-2006)**

2003 RUC Code	NFIRS- nonCensus Departments	Census- NFIRS Departments	Total NFIRS Departments	Total NFIRS Percent	Census- nonNFIRS Departments	Total Departments	Total Departments Percent
MIDWEST							
1	91	1,340	1,431	18.2	108	1,539	17.0
2	84	880	964	12.3	129	1,093	12.1
3	101	943	1,044	13.3	138	1,182	13.1
4	79	663	742	9.5	64	806	8.9
5	42	280	322	4.1	52	374	4.1
6	164	1,110	1,274	16.2	217	1,491	16.5
7	154	808	962	12.3	187	1,149	12.7
8	47	288	335	4.3	90	425	4.7
9	149	628	777	9.9	211	988	10.9
Total	911	6,940	7,851	100.0	1,196	9,047	100.0
NORTHEAST							
1	175	1,505	1,680	39.6	546	2,226	37.8
2	110	986	1,096	25.8	321	1,417	24.1
3	48	303	351	8.3	113	464	7.9
4	61	398	459	10.8	318	777	13.2
5	6	99	105	2.5	29	134	2.3
6	48	299	347	8.2	193	540	9.2
7	18	134	152	3.6	83	235	4.0
8	3	28	31	0.7	33	64	1.1
9	6	16	22	0.5	9	31	0.5
Total	475	3,768	4,243	100.0	1,645	5,888	100.0
SOUTH							
1	241	1,219	1,460	18.7	355	1,815	17.8
2	147	1,119	1,266	16.2	353	1,619	15.8
3	161	904	1,065	13.6	307	1,372	13.4
4	124	620	744	9.5	200	944	9.2
5	40	193	233	3.0	63	296	2.9
6	269	1,256	1,525	19.5	572	2,097	20.5
7	138	647	785	10.0	229	1,014	9.9
8	73	298	371	4.7	156	527	5.2
9	65	298	363	4.6	177	540	5.3
Total	1,258	6,554	7,812	100.0	2,412	10,224	100.0
WEST							
1	28	411	439	17.0	194	633	17.5
2	38	343	381	14.7	147	528	14.6
3	57	304	361	14.0	131	492	13.6
4	33	213	246	9.5	111	357	9.9
5	31	137	168	6.5	64	232	6.4
6	66	215	281	10.9	115	396	11.0
7	82	324	406	15.7	161	567	15.7
8	30	93	123	4.8	37	160	4.4
9	52	128	180	7.0	64	244	6.8
Total	417	2,168	2,585	100.0	1,024	3,609	100.0

Source: USFA's National Fire Department Census and 2004-2006 NFIRS data.

Notes: There were 885 NFIRS departments that were not assigned a 2003 RUC Code. Total percents may not add to 100 due to rounding.

Recommendations

Based on this *NFIRS Representativeness Study*, it is recommended that USFA work with NFIRS Program Managers in States with lower rates of fire incident reporting to encourage fire department participation in NFIRS. States of particular concern are located in the Northeast and West regions of the country where the average rates of reporting are approximately 72 percent for each of these regions. In the Northeast, large percentages of fire departments located in Pennsylvania and New York are consistently not reporting fire incidents to NFIRS. In the West, fire departments in California have a high incidence of nonreporting.

USFA can provide individual NFIRS State Program Managers with a list of departments identified as not reporting to NFIRS. USFA proposes that NFIRS State Program Managers collaborate with nonreporting fire departments to encourage participation by emphasizing the importance of fire data analysis and how fire departments can use their data to show the need for funding and additional resources. Additionally, the U.S. Congress has authorized and funded (beginning FY2009) USFA to develop a simplified NFIRS web-based reporting interface. This will make reporting and accessing the NFIRS data much easier for all fire departments.

All States with higher incidence of nonreporting departments in nonmetro counties with a population of 20,000 or less will be encouraged to develop programs to increase participation. State Program Managers will also be encouraged to continue to work with departments currently reporting to enhance data quality through training programs. USFA also offers several NFIRS training courses for fire departments which include the NFIRS Program Management course, NFIRS 5.0 Self-Study, and the Introduction to NFIRS 5.0. The NFIRS Program Management course enables participants to promote, support, and manage NFIRS data collection successfully. The NFIRS 5.0 Self-Study (online) course provides an overview of the data collection system, its modules and data conversion issues. The Introduction to NFIRS 5.0 course emphasizes how to use standardized forms to achieve uniformity in incident and activity reporting. This training program is designed specifically to support local fire service organizations, and assists them in providing data both to management and decision makers, as well as to the State uniform fire reporting system. Additionally, USFA's NFIRS Support Center offers a consolidated national help desk to provide technical support regarding all aspects of NFIRS.

Appendix I

**Table I-1. The Number of Census-NFIRS and Census-nonNFIRS Departments:
2003 RUC Code by Department Type**

2003 RUC Code	Volunteer	Mostly Volunteer	Mostly Career	Career	Total
CENSUS-NFIRS					
1	2,239	1,026	445	748	4,458
2	2,001	808	212	300	3,321
3	1,706	419	95	228	2,448
4	1,383	301	92	112	1,888
5	491	117	28	70	706
6	2,354	371	79	57	2,861
7	1,537	284	48	35	1,904
8	650	49	1	4	704
9	1,019	46	0	2	1,067
Total	13,380	3,421	1,000	1,556	19,357
CENSUS-NONNFIRS					
1	758	184	47	198	1,187
2	686	134	27	93	940
3	543	67	10	64	684
4	571	75	13	32	691
5	169	10	2	25	206
6	980	76	11	20	1,087
7	589	38	6	17	650
8	291	13	0	3	307
9	440	16	0	4	460
Total	5,027	613	116	456	6,212

Source: USFA's National Fire Department Census and 2004-2006 NFIRS data.

Note: There were 73 Census-NFIRS departments where the numbers of firefighters were not reported.

Table I-2. Census-NFIRS Departments by the 2003 RUC Code and Region

2003 RUC Code	Midwest		Northeast		South		West		Total	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
1	1,340	6.9	1,505	7.7	1,219	6.3	411	2.1	4,475	23.0
2	880	4.5	986	5.1	1,119	5.8	343	1.8	3,328	17.1
3	943	4.9	303	1.6	904	4.7	304	1.6	2,454	12.6
4	663	3.4	398	2.0	620	3.2	213	1.1	1,894	9.7
5	280	1.4	99	0.5	193	1.0	137	0.7	709	3.6
6	1,110	5.7	299	1.5	1,256	6.5	215	1.1	2,880	14.8
7	808	4.2	134	0.7	647	3.3	324	1.7	1,913	9.8
8	288	1.5	28	0.1	298	1.5	93	0.5	707	3.6
9	628	3.2	16	0.1	298	1.5	128	0.7	1,070	5.5
Total	6,940	35.7	3,768	19.4	6,554	33.7	2,168	11.2	19,430	100.0

Source: USFA's National Fire Department Census and 2004-2006 NFIRS data.

Note: Total percent may not add to 100 due to rounding.

Table I-3. Census-nonNFIRS Departments by the 2003 RUC Code and Region

2003 RUC Code	Midwest		Northeast		South		West		Total	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
1	108	1.7	546	8.7	355	5.7	194	3.1	1,203	19.2
2	129	2.1	321	5.1	353	5.6	147	2.3	950	15.1
3	138	2.2	113	1.8	307	4.9	131	2.1	689	11.0
4	64	1.0	318	5.1	200	3.2	111	1.8	693	11.0
5	52	0.8	29	0.5	63	1.0	64	1.0	208	3.3
6	217	3.5	193	3.1	572	9.1	115	1.8	1,097	17.5
7	187	3.0	83	1.3	229	3.6	161	2.6	660	10.5
8	90	1.4	33	0.5	156	2.5	37	0.6	316	5.0
9	211	3.4	9	0.1	177	2.8	64	1.0	461	7.3
Total	1,196	19.1	1,645	26.2	2,412	38.4	1,024	16.3	6,277	100.0

Source: USFA's National Fire Department Census and 2004-2006 NFIRS data.

Note: Total percent may not add to 100 due to rounding.

Table I-4. The Number of Census-NFIRS Departments by Region: 2003 RUC Code by Department Type

2003 RUC Code	Volunteer	Mostly Volunteer	Mostly Career	Career	Total
MIDWEST					
1	538	391	143	267	1,339
2	588	197	35	60	880
3	733	110	22	76	941
4	526	73	20	44	663
5	201	37	9	31	278
6	969	94	22	18	1,103
7	685	89	13	15	802
8	282	6	0	0	288
9	618	10	0	0	628
Total	5,140	1,007	264	511	6,922
NORTHEAST					
1	1,075	214	75	134	1,498
2	730	163	35	56	984
3	235	34	16	17	302
4	337	38	9	12	396
5	85	10	1	2	98
6	276	18	1	1	296
7	113	17	4	0	134
8	20	7	0	0	27
9	15	1	0	0	16
Total	2,886	502	141	222	3,751
SOUTH					
1	581	288	127	215	1,211
2	585	304	93	135	1,117
3	634	141	29	97	901
4	421	105	48	42	616
5	140	18	10	25	193
6	975	193	46	33	1,247
7	510	98	24	13	645
8	268	25	0	3	296
9	276	20	0	0	296
Total	4,390	1,192	377	563	6,522
WEST					
1	45	133	100	132	410
2	98	144	49	49	340
3	104	134	28	38	304
4	99	85	15	14	213
5	65	52	8	12	137
6	134	66	10	5	215
7	229	80	7	7	323
8	80	11	1	1	93
9	110	15	0	2	127
Total	964	720	218	260	2,162

Source: USFA's National Fire Department Census and 2004-2006 NFIRS data.

Note: There were 73 Census-NFIRS departments where the numbers of firefighters were not reported.

Table I-5. The Number of Census-nonNFIRS Departments by Region: 2003 RUC Code by Department Type

2003 RUC Code	Volunteer	Mostly Volunteer	Mostly Career	Career	Total
MIDWEST					
1	57	20	3	25	105
2	100	11	1	16	128
3	112	8	1	16	137
4	58	5	0	1	64
5	43	0	1	7	51
6	202	6	2	4	214
7	167	12	1	4	184
8	84	2	0	0	86
9	197	11	0	2	210
Total	1,020	75	9	75	1,179
NORTHEAST					
1	425	55	10	49	539
2	268	29	4	18	319
3	102	5	1	5	113
4	298	8	0	10	316
5	25	3	0	1	29
6	188	3	0	1	192
7	78	2	0	2	82
8	31	2	0	0	33
9	9	0	0	0	9
Total	1,424	107	15	86	1,632
SOUTH					
1	217	61	13	59	350
2	255	54	11	28	348
3	246	30	2	27	305
4	146	33	6	15	200
5	50	2	0	11	63
6	504	48	6	9	567
7	211	9	2	2	224
8	143	7	0	1	151
9	173	4	0	0	177
Total	1,945	248	40	152	2,385
WEST					
1	59	48	21	65	193
2	63	40	11	31	145
3	83	24	6	16	129
4	69	29	7	6	111
5	51	5	1	6	63
6	86	19	3	6	114
7	133	15	3	9	160
8	33	2	0	2	37
9	61	1	0	2	64
Total	638	183	52	143	1,016

Source: USFA's National Fire Department Census and 2004-2006 NFIRS data.

Note: There were 65 Census-nonNFIRS departments where the numbers of firefighters were not reported.

Table I-6. The Number of NFIRS-nonCensus Departments: 2003 RUC Code by Department Type

2003 RUC Code	Volunteer	Mostly Volunteer	Mostly Career	Career	Total
1	265	34	8	19	326
2	193	38	9	9	249
3	193	21	1	10	225
4	160	14	4	11	189
5	73	5	2	0	80
6	302	25	3	8	338
7	245	24	0	5	274
8	75	3	0	0	78
9	200	11	0	1	212
Total	1,706	175	27	63	1,971

Source: USFA's National Fire Department Census and 2004-2006 NFIRS data.

Note: There were 1,953 NFIRS-nonCensus departments where the numbers of firefighters were not reported. There were an additional 22 departments with no address information so a 2003 RUC Code was not assigned.

Table I-7. The Number of NFIRS-nonCensus Departments by Region: 2003 RUC Code by Department Type

2003 RUC Code	Volunteer	Mostly Volunteer	Mostly Career	Career	Total
MIDWEST					
1	64	8	0	3	75
2	51	4	0	3	58
3	71	3	0	1	75
4	58	2	0	1	61
5	29	3	2	0	34
6	112	5	1	1	119
7	97	11	0	1	109
8	22	0	0	0	22
9	121	5	0	0	126
Total	625	41	3	10	679
NORTHEAST					
1	116	9	2	8	135
2	51	6	0	2	59
3	28	5	0	0	33
4	28	1	0	0	29
5	4	0	0	0	4
6	23	2	0	0	25
7	11	1	0	0	12
8	0	1	0	0	1
9	6	0	0	0	6
Total	267	25	2	10	304
SOUTH					
1	80	17	4	7	108
2	78	26	8	4	116
3	72	9	1	9	91
4	53	11	4	10	78
5	26	2	0	0	28
6	135	12	2	6	155
7	93	7	0	3	103
8	41	2	0	0	43
9	44	4	0	0	48
Total	622	90	19	39	770
WEST					
1	5	0	2	1	8
2	13	2	1	0	16
3	22	4	0	0	26
4	21	0	0	0	21
5	14	0	0	0	14
6	32	6	0	1	39
7	44	5	0	1	50
8	12	0	0	0	12
9	29	2	0	1	32
Total	192	19	3	4	218

Source: USFA's National Fire Department Census and 2004-2006 NFIRS data.

Note: There were 1,953 NFIRS-nonCensus departments where the numbers of firefighters were not reported. There were an additional 22 departments with no address information so a 2003 RUC Code was not assigned.

Appendix II

Table II-1. Census-NFIRS Departments by State within Region and 2003 RUC Code:
Midwest Region

State	Number of Census-NFIRS Departments	Percent
2003 RUC Code: 1		
IL	353	26.34
IN	169	12.61
KS	40	2.99
MI	143	10.67
MN	126	9.40
MO	149	11.12
OH	298	22.24
WI	62	4.63
Total	1,340	100.00
2003 RUC Code: 2		
IA	57	6.48
IL	90	10.23
IN	70	7.95
KS	36	4.09
MI	150	17.05
MN	73	8.3
MO	34	3.86
NE	43	4.89
OH	251	28.52
WI	76	8.64
Total	880	100.00
2003 RUC Code: 3		
IA	79	8.38
IL	111	11.77
IN	148	15.69
KS	50	5.30
MI	139	14.74
MN	67	7.10
MO	54	5.73
ND	34	3.61
NE	10	1.06
OH	106	11.24
SD	46	4.88
WI	99	10.50
Total	943	100.00
2003 RUC Code: 4		
IA	21	3.17
IL	92	13.88
IN	77	11.61
KS	25	3.77
MI	62	9.35
MN	38	5.73
MO	23	3.47
NE	5	0.75
OH	244	36.80
WI	76	11.46
Total	663	100.00

State	Number of Census-NFIRS Departments	Percent
2003 RUC Code: 5		
IA	23	8.21
IL	55	19.64
IN	10	3.57
KS	30	10.71
MI	65	23.21
MN	29	10.36
MO	24	8.57
ND	7	2.50
NE	27	9.64
SD	10	3.57
Total	280	100.00
2003 RUC CODE: 6		
IA	125	11.26
IL	155	13.96
IN	157	14.14
KS	54	4.86
MI	73	6.58
MN	105	9.46
MO	103	9.28
ND	29	2.61
NE	31	2.79
OH	152	13.69
SD	15	1.35
WI	111	10.00
Total	1,110	100.00
2003 RUC Code: 7		
IA	88	10.89
IL	87	10.77
IN	29	3.59
KS	86	10.64
MI	128	15.84
MN	131	16.21
MO	70	8.66
ND	21	2.60
NE	53	6.56
OH	47	5.82
SD	45	5.57
WI	23	2.85
Total	808	100.00
2003 RUC Code: 8		
IA	38	13.19
IL	7	2.43
IN	19	6.60
KS	12	4.17
MI	11	3.82
MN	47	16.32
MO	36	12.50
ND	34	11.81
NE	8	2.78
OH	6	2.08
SD	22	7.64
WI	48	16.67
Total	288	100.00

State	Number of Census-NFIRS Departments	Percent
2003 RUC Code: 9		
IA	37	5.89
IL	18	2.87
KS	86	13.69
MI	59	9.39
MN	63	10.03
MO	77	12.26
ND	94	14.97
NE	81	12.90
OH	4	0.64
SD	92	14.65
WI	17	2.71
Total	628	100.00

Source: USFA's National Fire Department Census and 2004-2006 NFIRS data
Note: Total percents may not add to 100 due to rounding.

**Table II-2. Census-NFIRS Departments by State within Region and 2003 RUC Code:
Northeast Region**

State	Number of Census-NFIRS Departments	Percent
2003 RUC Code: 1		
CT	67	4.45
MA	168	11.16
NH	43	2.86
NJ	498	33.09
NY	381	25.32
PA	335	22.26
RI	13	0.86
Total	1,505	100.00
2003 RUC Code: 2		
CT	99	10.04
MA	126	12.78
ME	47	4.77
NH	22	2.23
NJ	72	7.30
NY	356	36.11
PA	264	26.77
Total	986	100.00
2003 RUC Code: 3		
MA	43	14.19
ME	35	11.55
NJ	39	12.87
NY	86	28.38
PA	69	22.77
VT	31	10.23
Total	303	100.00

State	Number of Census-NFIRS Departments	Percent
2003 RUC Code: 4		
CT	50	12.56
ME	19	4.77
NH	46	11.56
NY	183	45.98
PA	85	21.36
VT	15	3.77
Total	398	100.00
2003 RUC Code: 5		
NH	20	20.20
NY	56	56.57
VT	23	23.23
Total	99	100.00
2003 RUC Code: 6		
ME	65	21.74
NY	142	47.49
PA	52	17.39
VT	40	13.38
Total	299	100.00
2003 RUC Code: 7		
MA	7	5.22
ME	43	32.09
NH	16	11.94
NY	16	11.94
PA	13	9.70
VT	39	29.10
Total	134	100.00
2003 RUC Code: 8		
ME	12	42.86
NH	9	32.14
NY	1	3.57
PA	1	3.57
VT	5	17.86
Total	28	100.00
2003 RUC Code: 9		
PA	2	12.50
VT	14	87.50
Total	16	100.00

Source: USFA's National Fire Department Census and 2004-2006 NFIRS data

Note: Total percents may not add to 100 due to rounding.

**Table II-3. Census-NFIRS Departments by State within Region and 2003 RUC Code:
South Region**

State	Number of Census-NFIRS Departments	Percent
2003 RUC Code: 1		
AL	82	6.73
AR	9	0.74
DC	1	0.08
DE	18	1.48
FL	113	9.27
GA	54	4.43
KY	96	7.88
LA	29	2.38
MD	130	10.66
MS	25	2.05
NC	42	3.45
OK	55	4.51
SC	6	0.49
TN	95	7.79
TX	374	30.68
VA	85	6.97
WV	5	0.41
Total	1,219	100.00
2003 RUC Code: 2		
AL	38	3.40
AR	122	10.90
FL	119	10.63
GA	28	2.50
KY	52	4.65
LA	54	4.83
MS	41	3.66
NC	250	22.34
OK	72	6.43
SC	128	11.44
TN	54	4.83
TX	78	6.97
VA	19	1.70
WV	64	5.72
Total	1,119	100.00

State	Number of Census-NFIRS Departments	Percent
2003 RUC Code: 3		
AL	52	5.75
AR	42	4.65
DE	15	1.66
FL	33	3.65
GA	43	4.76
KY	59	6.53
LA	44	4.87
MD	47	5.20
MS	47	5.20
NC	78	8.63
OK	14	1.55
SC	35	3.87
TN	72	7.96
TX	118	13.05
VA	109	12.06
WV	96	10.62
Total	904	100.00
2003 RUC Code: 4		
AL	33	5.32
AR	24	3.87
DE	23	3.71
FL	39	6.29
GA	9	1.45
KY	22	3.55
LA	42	6.77
MD	10	1.61
MS	12	1.94
NC	157	25.32
OK	27	4.35
SC	48	7.74
TN	58	9.35
TX	75	12.10
VA	19	3.06
WV	22	3.55
Total	620	100.00
2003 RUC Code: 5		
AR	20	10.36
KY	16	8.29
MS	42	21.76
NC	18	9.33
OK	33	17.10
SC	7	3.63
TN	4	2.07
TX	27	13.99
WV	26	13.47
Total	193	100.00

State	Number of Census-NFIRS Departments	Percent
2003 RUC Code: 6		
AL	96	7.64
AR	96	7.64
FL	54	4.30
GA	58	4.62
KY	77	6.13
LA	58	4.62
MD	33	2.63
MS	47	3.74
NC	96	7.64
OK	93	7.40
SC	50	3.98
TN	161	12.82
TX	190	15.13
VA	76	6.05
WV	71	5.65
Total	1,256	100.00
2003 RUC Code: 7		
AL	12	1.85
AR	114	17.62
GA	21	3.25
KY	131	20.25
LA	8	1.24
MS	98	15.15
NC	17	2.63
OK	55	8.50
SC	1	0.15
TN	48	7.42
TX	41	6.34
VA	41	6.34
WV	60	9.27
Total	647	100.00
2003 RUC Code: 8		
AL	38	12.75
AR	15	5.03
FL	7	2.35
GA	15	5.03
KY	36	12.08
LA	2	0.67
MS	24	8.05
NC	36	12.08
OK	1	0.34
SC	2	0.67
TN	48	16.11
TX	20	6.71
VA	34	11.41
WV	20	6.71
Total	298	100.00

State	Number of Census-NFIRS Departments	Percent
2003 RUC Code: 9		
AL	14	4.70
AR	41	13.76
GA	10	3.36
KY	71	23.83
LA	9	3.02
MS	27	9.06
NC	32	10.74
OK	26	8.72
TN	13	4.36
TX	16	5.37
VA	22	7.38
WV	17	5.70
Total	298	100.00

Source: USFA's National Fire Department Census and 2004-2006 NFIRS data

Note: Total percents may not add to 100 due to rounding.

**Table II-4. Census-NFIRS Departments by State within Region and 2003 RUC Code:
West Region**

State	Number of Census-NFIRS Departments	Percent
2003 RUC Code: 1		
AZ	24	5.84
CA	201	48.91
CO	46	11.19
NV	6	1.46
OR	37	9.00
WA	97	23.60
Total	411	100.00
2003 RUC Code: 2		
AK	15	4.37
AZ	10	2.92
CA	114	33.24
CO	48	13.99
HI	1	0.29
ID	24	7.00
NM	14	4.08
NV	7	2.04
OR	41	11.95
UT	55	16.03
WA	14	4.08
Total	343	100.00

State	Number of Census-NFIRS Departments	Percent
2003 RUC Code: 3		
AK	8	2.63
AZ	18	5.92
CA	54	17.76
CO	25	8.22
ID	21	6.91
MT	25	8.22
NM	11	3.62
NV	1	0.33
OR	24	7.89
UT	18	5.92
WA	88	28.95
WY	11	3.62
Total	304	100.00
2003 RUC Code: 4		
AZ	31	14.55
CA	37	17.37
CO	2	0.94
ID	7	3.29
NM	10	4.69
NV	2	0.94
OR	51	23.94
UT	16	7.51
WA	56	26.29
WY	1	0.47
Total	213	100.00
2003 RUC Code: 5		
AK	1	0.73
CA	10	7.30
CO	12	8.76
HI	3	2.19
ID	5	3.65
MT	38	27.74
NM	17	12.41
NV	5	3.65
OR	33	24.09
WA	5	3.65
WY	8	5.84
Total	137	100.00
2003 RUC Code: 6		
AZ	5	2.33
CA	24	11.16
CO	16	7.44
ID	41	19.07
MT	11	5.12
NM	22	10.23
NV	8	3.72
OR	26	12.09
UT	9	4.19
WA	51	23.72
WY	2	0.93
Total	215	100.00

State	Number of Census-NFIRS Departments	Percent
2003 RUC Code: 7		
AK	37	11.42
CA	23	7.10
CO	42	12.96
ID	25	7.72
MT	48	14.81
NM	36	11.11
NV	6	1.85
OR	30	9.26
UT	23	7.10
WA	7	2.16
WY	47	14.51
Total	324	100.00
2003 RUC Code: 8		
AK	17	18.28
CA	12	12.90
CO	7	7.53
ID	9	9.68
MT	23	24.73
NM	4	4.30
NV	4	4.30
UT	3	3.23
WA	14	15.05
Total	93	100.00
2003 RUC Code: 9		
AK	29	22.66
CO	21	16.41
ID	4	3.13
MT	17	13.28
NM	8	6.25
NV	3	2.34
OR	16	12.50
UT	13	10.16
WA	7	5.47
WY	10	7.81
Total	128	100.00

Source: USFA's National Fire Department Census and 2004-2006 NFIRS data
Note: Total percents may not add to 100 due to rounding.

**Table II-5. Census-nonNFIRS Departments by State within Region and 2003 RUC Code:
Midwest Region**

State	Number of Census-nonNFIRS Departments	Percent
2003 RUC Code: 1		
IL	27	25.00
IN	17	15.74
KS	4	3.70
MI	11	10.19
MN	1	0.93
MO	20	18.52
OH	5	4.63
WI	23	21.30
Total	108	100.00
2003 RUC Code: 2		
IA	35	27.13
IL	14	10.85
IN	9	6.98
KS	1	0.78
MI	12	9.30
MN	2	1.55
MO	9	6.98
NE	13	10.08
OH	6	4.65
WI	28	21.71
Total	129	100.00
2003 RUC Code: 3		
IA	27	19.57
IL	12	8.70
IN	12	8.70
KS	3	2.17
MI	7	5.07
MN	1	0.72
MO	9	6.52
ND	5	3.62
NE	2	1.45
OH	4	2.90
SD	13	9.42
WI	43	31.16
Total	138	100.00
2003 RUC Code: 4		
IA	8	12.50
IL	11	17.19
IN	7	10.94
KS	3	4.69
MI	3	4.69
MN	2	3.13
MO	1	1.56
NE	3	4.69
OH	1	1.56
WI	25	39.06
Total	64	100.00

State	Number of Census- nonNFIRS Departments	Percent
2003 RUC Code: 5		
IA	10	19.23
IL	4	7.69
IN	1	1.92
KS	2	3.85
MI	11	21.15
MN	2	3.85
MO	6	11.54
ND	5	9.62
NE	11	21.15
Total	52	100.00
2003 RUC CODE: 6		
IA	50	23.04
IL	11	5.07
IN	16	7.37
KS	6	2.76
MI	8	3.69
MN	4	1.84
MO	35	16.13
ND	13	5.99
NE	6	2.76
SD	2	0.92
WI	66	30.41
Total	217	100.00
2003 RUC Code: 7		
IA	55	29.41
IL	10	5.35
IN	3	1.60
KS	7	3.74
MI	25	13.37
MN	1	0.53
MO	28	14.97
ND	8	4.28
NE	24	12.83
SD	11	5.88
WI	15	8.02
Total	187	100.00
2003 RUC Code: 8		
IA	22	24.44
IL	2	2.22
IN	4	4.44
KS	2	2.22
MI	4	4.44
MN	1	1.11
MO	11	12.22
ND	10	11.11
NE	4	4.44
SD	3	3.33
WI	27	30.00
Total	90	100.00

State	Number of Census-nonNFIRS Departments	Percent
2003 RUC Code: 9		
IA	26	12.32
IL	4	1.90
KS	12	5.69
MI	19	9.00
MN	2	0.95
MO	28	13.27
ND	37	17.54
NE	42	19.91
SD	19	9.00
WI	22	10.43
Total	211	100.00

Source: USFA's National Fire Department Census and 2004-2006 NFIRS data
Note: Total percents may not add to 100 due to rounding.

**Table II-6. Census-nonNFIRS Departments by State within Region and 2003 RUC Code:
Northeast Region**

State	Number of Census-nonNFIRS Departments	Percent
2003 RUC Code: 1		
CT	6	1.10
MA	1	0.18
NH	9	1.65
NJ	60	10.99
NY	113	20.70
PA	297	54.40
RI	60	10.99
Total	546	100.00
2003 RUC Code: 2		
CT	7	2.18
MA	4	1.25
ME	19	5.92
NH	4	1.25
NJ	7	2.18
NY	70	21.81
PA	210	65.42
Total	321	100.00
2003 RUC Code: 3		
MA	5	4.42
ME	17	15.04
NJ	5	4.42
NY	25	22.12
PA	56	49.56
VT	5	4.42
Total	113	100.00

State	Number of Census- nonNFIRS Departments	Percent
2003 RUC Code: 4		
CT	6	1.89
ME	7	2.20
NH	13	4.09
NY	75	23.58
PA	216	67.92
VT	1	0.31
Total	318	100.00
2003 RUC Code: 5		
NH	8	27.59
NY	20	68.97
VT	1	3.45
Total	29	100.00
2003 RUC Code: 6		
ME	37	19.17
NY	55	28.50
PA	95	49.22
VT	6	3.11
Total	193	100.00
2003 RUC Code: 7		
ME	25	30.12
NH	10	12.05
NY	6	7.23
PA	36	43.37
VT	6	7.23
Total	83	100.00
2003 RUC Code: 8		
ME	7	21.21
NH	7	21.21
NY	6	18.18
PA	10	30.30
VT	3	9.09
Total	33	100.00
2003 RUC Code: 9		
PA	8	88.89
VT	1	11.11
Total	9	100.00

Source: USFA's National Fire Department Census and 2004-2006 NFIRS data
Note: Total percents may not add to 100 due to rounding.

**Table II-7. Census-nonNFIRS Departments by State within Region and 2003 RUC Code:
South Region**

State	Number of Census-nonNFIRS Departments	Percent
2003 RUC Code: 1		
AL	57	16.06
AR	2	0.56
DC	2	0.56
DE	1	0.28
FL	28	7.89
GA	28	7.89
KY	16	4.51
LA	14	3.94
MD	11	3.10
NC	25	7.04
OK	23	6.48
SC	8	2.25
TN	10	2.82
TX	86	24.23
VA	44	12.39
Total	355	100.00
2003 RUC Code: 2		
AL	42	11.90
AR	25	7.08
FL	22	6.23
GA	24	6.80
KY	6	1.70
LA	14	3.97
MS	3	0.85
NC	65	18.41
OK	53	15.01
SC	65	18.41
TN	4	1.13
TX	25	7.08
VA	4	1.13
WV	1	0.28
Total	353	100.00
2003 RUC Code: 3		
AL	87	28.34
AR	10	3.26
FL	8	2.61
GA	37	12.05
KY	10	3.26
LA	21	6.84
MD	3	0.98
MS	1	0.33
NC	14	4.56
OK	3	0.98
SC	10	3.26
TN	3	0.98
TX	76	24.76
VA	20	6.51
WV	4	1.30
Total	307	100.00

State	Number of Census- nonNFIRS Departments	Percent
2003 RUC Code: 4		
AL	43	21.50
AR	6	3.00
FL	8	4.00
GA	11	5.50
KY	2	1.00
LA	22	11.00
MD	1	0.50
NC	42	21.00
OK	22	11.00
SC	13	6.50
TN	2	1.00
TX	27	13.50
VA	1	0.50
Total	200	100.00
2003 RUC CODE: 5		
AR	2	3.17
KY	2	3.17
MS	5	7.94
NC	6	9.52
OK	24	38.10
SC	4	6.35
TN	2	3.17
TX	17	26.98
WV	1	1.59
Total	63	100.00
2003 RUC Code: 6		
AL	81	14.16
AR	58	10.14
FL	18	3.15
GA	59	10.31
KY	20	3.50
LA	30	5.24
MD	2	0.35
MS	1	0.17
NC	42	7.34
OK	87	15.21
SC	45	7.87
TN	6	1.05
TX	111	19.41
VA	12	2.10
Total	572	100.00

State	Number of Census- nonNFIRS Departments	Percent
2003 RUC Code: 7		
AL	24	10.48
AR	40	17.47
GA	19	8.30
KY	31	13.54
LA	4	1.75
MS	3	1.31
NC	9	3.93
OK	58	25.33
SC	4	1.75
TN	2	0.87
TX	32	13.97
VA	3	1.31
Total	229	100.00
2003 RUC Code: 8		
AL	50	32.05
AR	15	9.62
FL	4	2.56
GA	17	10.90
KY	9	5.77
LA	1	0.64
NC	15	9.62
OK	5	3.21
SC	5	3.21
TN	4	2.56
TX	23	14.74
VA	7	4.49
WV	1	0.64
Total	156	100.00
2003 RUC Code: 9		
AL	23	12.99
AR	16	9.04
GA	14	7.91
KY	10	5.65
LA	3	1.69
MS	1	0.56
NC	34	19.21
OK	47	26.55
TN	1	0.56
TX	20	11.30
VA	7	3.95
WV	1	0.56
Total	177	100.00

Source: USFA's National Fire Department Census and 2004-2006 NFIRS data

Note: Total percents may not add to 100 due to rounding.

**Table II-8. Census-nonNFIRS Departments by State within Region and 2003 RUC Code:
West Region**

State	Number of Census-nonNFIRS Departments	Percent
2003 RUC Code: 1		
AZ	35	18.04
CA	123	63.40
CO	19	9.79
NM	1	0.52
NV	1	0.52
OR	2	1.03
WA	13	6.70
Total	194	100.00
2003 RUC Code: 2		
AK	6	4.08
AZ	12	8.16
CA	71	48.30
CO	18	12.24
HI	2	1.36
ID	3	2.04
NM	13	8.84
NV	2	1.36
OR	6	4.08
UT	11	7.48
WA	3	2.04
Total	147	100.00
2003 RUC Code: 3		
AK	1	0.76
AZ	29	22.14
CA	32	24.43
CO	11	8.40
ID	7	5.34
MT	14	10.69
NM	16	12.21
OR	2	1.53
UT	7	5.34
WA	9	6.87
WY	3	2.29
Total	131	100.00
2003 RUC Code: 4		
AZ	49	44.14
CA	20	18.02
CO	3	2.70
ID	3	2.70
NM	12	10.81
OR	6	5.41
UT	2	1.80
WA	12	10.81
WY	4	3.60
Total	111	100.00

State	Number of Census- nonNFIRS Departments	Percent
2003 RUC Code: 5		
CA	17	26.56
CO	3	4.69
ID	2	3.13
MT	12	18.75
NM	15	23.44
NV	1	1.56
OR	6	9.38
WA	2	3.13
WY	6	9.38
Total	64	100.00
2003 RUC Code: 6		
AZ	11	9.57
CA	28	24.35
CO	8	6.96
ID	14	12.17
MT	5	4.35
NM	24	20.87
OR	5	4.35
UT	7	6.09
WA	12	10.43
WY	1	0.87
Total	115	100.00
2003 RUC Code: 7		
AK	17	10.56
AZ	2	1.24
CA	39	24.22
CO	22	13.66
ID	5	3.11
MT	29	18.01
NM	18	11.18
NV	6	3.73
OR	3	1.86
UT	12	7.45
WA	1	0.62
WY	7	4.35
Total	161	100.00
2003 RUC Code: 8		
AK	3	8.11
CA	12	32.43
CO	4	10.81
ID	2	5.41
MT	7	18.92
NM	3	8.11
NV	2	5.41
UT	2	5.41
WA	2	5.41
Total	37	100.00

State	Number of Census- nonNFIRS Departments	Percent
2003 RUC Code: 9		
AK	7	10.94
CO	11	17.19
ID	1	1.56
MT	22	34.38
NM	11	17.19
OR	4	6.25
UT	3	4.69
WA	1	1.56
WY	4	6.25
Total	64	100.00

Source: USFA's National Fire Department Census and 2004-2006 NFIRS data

Note: Total percents may not add to 100 due to rounding.

Table II-9. NFIRS-nonCensus Departments by State within Region and 2003 RUC Code:

Midwest Region

State	Number of NFIRS- nonCensus Departments	Percent
2003 RUC Code: 1		
IL	8	8.79
IN	39	42.86
KS	8	8.79
MI	2	2.20
MN	10	10.99
MO	1	1.10
OH	12	13.19
WI	11	12.09
Total	91	100.00
2003 RUC Code: 2		
IA	6	7.14
IL	11	13.10
IN	8	9.52
KS	3	3.57
MI	12	14.29
MN	10	11.90
MO	4	4.76
NE	7	8.33
OH	16	19.05
WI	7	8.33
Total	84	100.00

State	Number of NFIRS- nonCensus Departments	Percent
2003 RUC Code: 3		
IA	7	6.93
IL	12	11.88
IN	15	14.85
KS	14	13.86
MI	13	12.87
MN	5	4.95
MO	2	1.98
ND	3	2.97
OH	12	11.88
SD	5	4.95
WI	13	12.87
Total	101	100.00
2003 RUC Code: 4		
IA	2	2.53
IL	9	11.39
IN	11	13.92
KS	5	6.33
MI	4	5.06
MN	4	5.06
MO	1	1.27
OH	32	40.51
WI	11	13.92
Total	79	100.00
2003 RUC Code: 5		
IA	3	7.14
IL	8	19.05
IN	1	2.38
KS	10	23.81
MI	8	19.05
MN	1	2.38
MO	3	7.14
NE	8	19.05
Total	42	100.00
2003 RUC Code: 6		
IA	11	6.71
IL	18	10.98
IN	27	16.46
KS	27	16.46
MI	6	3.66
MN	18	10.98
MO	12	7.32
NE	3	1.83
OH	23	14.02
SD	3	1.83
WI	16	9.76
Total	164	100.00

State	Number of NFIRS- nonCensus Departments	Percent
2003 RUC Code: 7		
IA	12	7.79
IL	9	5.84
IN	6	3.90
KS	47	30.52
MI	31	20.13
MN	16	10.39
MO	5	3.25
ND	2	1.30
NE	9	5.84
OH	4	2.60
SD	12	7.79
WI	1	0.65
Total	154	100.00
2003 RUC Code: 8		
IA	6	12.77
IL	1	2.13
IN	3	6.38
KS	4	8.51
MI	5	10.64
MN	10	21.28
MO	1	2.13
ND	1	2.13
NE	1	2.13
OH	2	4.26
SD	3	6.38
WI	10	21.28
Total	47	100.00
2003 RUC Code: 9		
IA	4	2.68
IL	5	3.36
KS	64	42.95
MI	6	4.03
MN	12	8.05
MO	8	5.37
ND	3	2.01
NE	23	15.44
OH	1	0.67
SD	20	13.42
WI	3	2.01
Total	149	100.00

Source: USFA's National Fire Department Census and 2004-2006 NFIRS data

Note: Total percents may not add to 100 due to rounding.

Table II-10. NFIRS-nonCensus Departments by State within Region and 2003 RUC Code:

Northeast Region

State	Number of NFIRS-nonCensus Departments	Percent
2003 RUC Code: 1		
CT	5	2.86
MA	4	2.29
NJ	70	40.00
NY	31	17.71
PA	65	37.14
Total	175	100.00
2003 RUC Code: 2		
CT	10	9.09
MA	6	5.45
ME	1	0.91
NJ	13	11.82
NY	39	35.45
PA	41	37.27
Total	110	100.00
2003 RUC Code: 3		
MA	3	6.25
ME	6	12.50
NJ	10	20.83
NY	11	22.92
PA	15	31.25
VT	3	6.25
Total	48	100.00
2003 RUC Code: 4		
CT	16	26.23
ME	1	1.64
NH	2	3.28
NY	26	42.62
PA	15	24.59
VT	1	1.64
Total	61	100.00
2003 RUC Code: 5		
NH	1	16.67
NY	2	33.33
VT	3	50.00
Total	6	100.00
2003 RUC Code: 6		
ME	6	12.5
NY	21	43.75
PA	12	25.00
VT	9	18.75
Total	48	100.00
2003 RUC Code: 7		
MA	1	5.56
ME	1	5.56
NH	2	11.11
NY	3	16.67
PA	4	22.22
VT	7	38.89
Total	18	100.00

State	Number of NFIRS- nonCensus Departments	Percent
2003 RUC Code: 8		
ME	1	33.33
NH	1	33.33
NY	1	33.33
Total	3	100.00
2003 RUC Code: 9		
PA	1	16.67
VT	5	83.33
Total	6	100.00

Source: USFA's National Fire Department Census and 2004-2006 NFIRS data

Note: Total percents may not add to 100 due to rounding.

**Table II-11. NFIRS-nonCensus Departments by State within Region and 2003 RUC Code:
South Region**

State	Number of NFIRS- nonCensus Departments	Percent
2003 RUC Code: 1		
AL	4	1.66
DE	4	1.66
FL	7	2.90
GA	6	2.49
KY	9	3.73
LA	5	2.07
MD	82	34.02
MS	2	0.83
NC	3	1.24
OK	6	2.49
TN	14	5.81
TX	53	21.99
VA	46	19.09
Total	241	100.00
2003 RUC Code: 2		
AL	7	4.76
AR	34	23.13
FL	12	8.16
GA	5	3.40
KY	2	1.36
LA	9	6.12
MS	9	6.12
NC	32	21.77
OK	7	4.76
SC	2	1.36
TN	5	3.40
TX	9	6.12
VA	6	4.08
WV	8	5.44
Total	147	100.00

State	Number of NFIRS- nonCensus Departments	Percent
2003 RUC Code: 3		
AL	1	0.62
AR	10	6.21
DE	1	0.62
FL	10	6.21
GA	9	5.59
KY	14	8.70
LA	21	13.04
MD	9	5.59
MS	18	11.18
NC	13	8.07
OK	1	0.62
SC	1	0.62
TN	3	1.86
TX	20	12.42
VA	16	9.94
WV	14	8.70
Total	161	100.00
2003 RUC Code: 4		
AL	3	2.42
AR	5	4.03
FL	11	8.87
GA	1	0.81
KY	2	1.61
LA	16	12.90
MD	7	5.65
MS	7	5.65
NC	28	22.58
OK	2	1.61
SC	3	2.42
TN	11	8.87
TX	17	13.71
VA	7	5.65
WV	4	3.23
Total	124	100.00
2003 RUC Code: 5		
AR	8	20.00
KY	3	7.50
MS	13	32.50
NC	1	2.50
OK	6	15.00
TN	2	5.00
TX	7	17.50
Total	40	100.00

State	Number of NFIRS- nonCensus Departments	Percent
2003 RUC Code: 6		
AL	9	3.35
AR	23	8.55
FL	26	9.67
GA	15	5.58
KY	15	5.58
LA	27	10.04
MD	6	2.23
MS	19	7.06
NC	14	5.20
OK	12	4.46
SC	11	4.09
TN	30	11.15
TX	39	14.50
VA	11	4.09
WV	12	4.46
Total	269	100.00
2003 RUC Code: 7		
AL	1	0.72
AR	25	18.12
GA	5	3.62
KY	28	20.29
LA	4	2.90
MS	32	23.19
NC	3	2.17
OK	11	7.97
TN	6	4.35
TX	9	6.52
VA	1	0.72
WV	13	9.42
Total	138	100.00
2003 RUC Code: 8		
AL	4	5.48
AR	2	2.74
FL	2	2.74
GA	8	10.96
KY	10	13.70
MS	12	16.44
NC	2	2.74
TN	11	15.07
TX	6	8.22
VA	10	13.70
WV	6	8.22
Total	73	100.00

State	Number of NFIRS- nonCensus Departments	Percent
2003 RUC Code: 9		
AL	3	4.62
AR	16	24.62
GA	2	3.08
KY	7	10.77
LA	1	1.54
MS	8	12.31
NC	4	6.15
OK	2	3.08
TN	5	7.69
TX	6	9.23
VA	7	10.77
WV	4	6.15
Total	65	100.00

Source: USFA's National Fire Department Census and 2004-2006 NFIRS data
Note: Total percents may not add to 100 due to rounding.

**Table II-12. NFIRS-nonCensus Departments by State within Region and 2003 RUC Code:
West Region**

State	Number of NFIRS- nonCensus Departments	Percent
2003 RUC Code: 1		
AZ	2	7.14
CA	17	60.71
CO	2	7.14
OR	3	10.71
WA	4	14.29
Total	28	100.00
2003 RUC Code: 2		
AK	2	5.26
CA	12	31.58
CO	3	7.89
ID	6	15.79
NM	1	2.63
OR	2	5.26
UT	10	26.32
WA	2	5.26
Total	38	100.00
2003 RUC Code: 3		
AK	1	1.75
CA	13	22.81
CO	1	1.75
MT	9	15.79
NM	7	12.28
OR	6	10.53
UT	6	10.53
WA	8	14.04
WY	6	10.53
Total	57	100.00

State	Number of NFIRS- nonCensus Departments	Percent
2003 RUC Code: 4		
AZ	1	3.03
CA	4	12.12
CO	1	3.03
ID	5	15.15
NM	5	15.15
OR	5	15.15
UT	1	3.03
WA	8	24.24
WY	3	9.09
Total	33	100.00
2003 RUC Code: 5		
CA	2	6.45
ID	2	6.45
MT	14	45.16
NM	4	12.90
OR	8	25.81
WA	1	3.23
Total	31	100.00
2003 RUC Code: 6		
AZ	2	3.03
CA	10	15.15
CO	3	4.55
ID	10	15.15
MT	6	9.09
NM	8	12.12
OR	8	12.12
UT	6	9.09
WA	10	15.15
WY	3	4.55
Total	66	100.00
2003 RUC Code: 7		
AK	10	12.20
CA	4	4.88
CO	4	4.88
ID	15	18.29
MT	17	20.73
NM	10	12.20
OR	3	3.66
UT	6	7.32
WA	2	2.44
WY	11	13.41
Total	82	100.00
2003 RUC Code: 8		
AK	2	6.67
CA	1	3.33
CO	1	3.33
ID	2	6.67
MT	19	63.33
NM	2	6.67
WA	3	10.00
Total	30	100.00

State	Number of NFIRS- nonCensus Departments	Percent
2003 RUC Code: 9		
AK	10	19.23
CO	3	5.77
ID	4	7.69
MT	22	42.31
NM	1	1.92
OR	3	5.77
UT	6	11.54
WY	3	5.77
Total	52	100.00

Source: USFA's National Fire Department Census and 2004-2006 NFIRS data
Note: Total percents may not add to 100 due to rounding.