



EMS System Demographics

The Federal Interagency Committee on EMS (FICEMS) sponsored the first nationwide assessment ever conducted of Emergency Medical Services (EMS) systems in the United States. This research note extracts information from the 2011 National EMS Assessment about EMS system demographics. The purpose of the assessment was to describe EMS, EMS emergency preparedness, and 911 systems at the State and national levels using existing data.

Data for the National EMS Assessment were compiled from four principal data sources, the National EMS Database, the “2011 EMS Industry Snapshot” conducted by the National Association of State EMS Officials (NASEMSO), the EMS for Children (EMSC) performance measure Federal reporting system, and the 2007 Indian Health Services Tribal EMSC Pediatric Assessment. The data used for this Research Note came from the 2011 EMS Industry Snapshot, a member survey conducted by the NASEMSO. Responses were obtained from all 50 State EMS Offices and from four of the six Territorial EMS Offices. American Samoa and the District of Columbia did not participate. While all State EMS offices completed the survey forms, not every question was answered on each form, leading to lower than 100% responses on many questions.

There Are More Than 21,000 Licensed Local EMS Agencies in the United States

Local EMS agencies are the smallest operational units within a State to be licensed by the State EMS Office. EMS agencies are licensed in each State to provide service to a specific location or service area. EMS service areas can be very large as in a geopolitical boundary, such as a county, city, or municipality, or as small as the local service area

of a single EMS agency station. Table 1 shows the smallest geographic areas within States that are licensed to respond to 911 emergencies. The number of licensed EMS agencies per State ranges from 7 to 1,555, with a median of 249 EMS agencies per State and an average of 7.0 EMS agencies per county. With data available from 49 of 50 States, it is estimated that there are 21,283 EMS agencies in the United States. Figure 1 shows the number of licensed EMS agencies per State.

Types of EMS Agencies Licensed by States

EMS agencies can be classified based on the primary type of EMS service they provide. EMS agency types can be divided into three main groups: (1) EMS agencies responding to 911-based emergencies with or without transport; (2) EMS agencies that provide scheduled medical transport, often referred to as non-emergent transport; and (3) EMS agencies known as Specialty Care Transport that provide emergent inter-facility transport from one healthcare facility to another. States frequently license Emergency Medical Dispatch (EMD) Centers. EMD Centers do not provide EMS transportation but do provide online medical care, and thus are considered a type of EMS agency.

All 50 State EMS Offices license EMS agencies that respond to 911 emergencies and provide transport to hospitals. Other EMS agencies licensed in decreasing order include Specialty Care Air Medical Transport (43 States), 911 Response (Scene) Without Transport (40), Non-Emergency Medical Transport (33), and Specialty Care Ground Transport (33). Only 18 States license Emergency Medical Dispatch Centers. Table 2 shows the types of EMS agencies licensed by each State.

Figure 1.
Total Number of EMS Agencies Licensed Per State, 2011

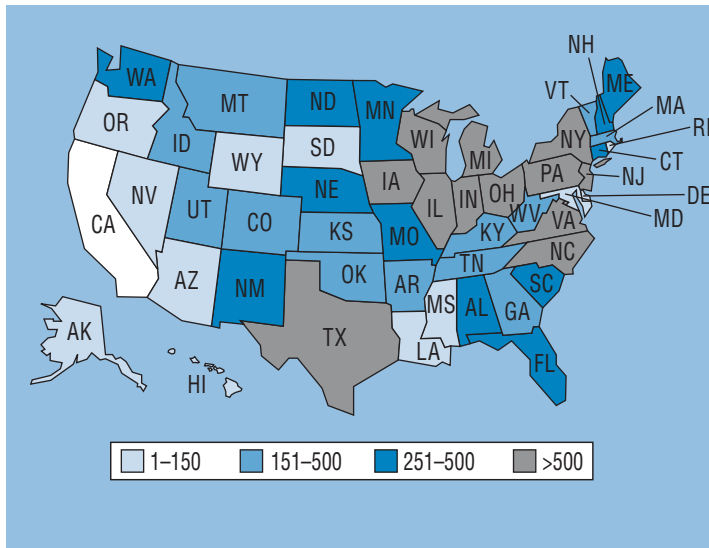


Figure 2.
Smallest Geographic Service Area Recognized by State EMS Offices

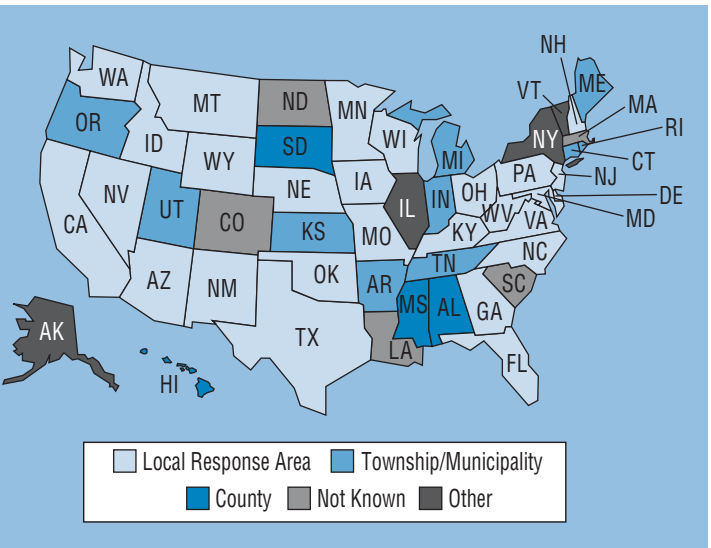


Table 1.
Smallest Geographic Service Areas Recognized by State EMS Offices for the Licensure of EMS Agencies Responding to 911 Events, 2011

Geographical Service Area	States		Territories	
	Frequency	Percent	Frequency	Percent
Local Response Area	27	54.0%	3	75.0%
Township/Municipality	10	20.0%	0	0.0%
County	4	8.0%	0	0.0%
Not known	5	10.0%	0	0.0%
Other	4	8.0%	1	25.0%

**AS and DC territory data were unavailable.

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the director of each State’s regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State’s available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was: “What is the smallest geographic service area recognized for 911 Response (Scene) With Transport Capability EMS Agencies?”

More Than Half of All EMS Agencies Are Licensed At the EMT-Basic Level

There are multiple levels of EMS service licensed by States, based on the level of care provided by the EMS professionals within the EMS agency. Many States use the term Advanced Life Support (ALS) to describe EMS agencies with EMT-Paramedic level service. Basic Life Support (BLS) is often used to describe EMS agencies with EMT-Basic level service. Forty-six State EMS offices (92%) license EMS agencies at the EMT-Paramedic, or ALS level of service. Forty-

five States license EMT-Basic level agencies and 38 States (76%) license EMT-Intermediate level EMS agencies. Less than half of the States license first responder EMS agencies and 10 States (20%) license Emergency Medical Dispatch Centers. The levels of service licensed by each State EMS Office are shown in Table 3. A total of 51% of licensed EMS agencies, excluding first responder agencies, function at the EMT-Basic level, 38% function at the EMT-Paramedic level 9% function at the EMT-Intermediate level, and 2% are Emergency Medical Dispatch Centers.

Table 2.

State-Licensed EMS Agencies, by Type, 2011

State	911 Response Without Transport	Non-Emergency Transport	Specialty Transport Air	Specialty Transport Ground	Emergency Medical Dispatch
Alabama	Yes	No	Yes	No	No
Alaska	Yes	Yes	Yes	No	No
Arizona	No	Yes	Yes	No	No
Arkansas	Yes	Yes	Yes	Yes	No
California	Unknown	Unknown	Unknown	Unknown	Unknown
Colorado	Yes	Yes	Yes	Yes	Yes
Connecticut	No	No	Yes	No	No
Delaware	Yes	Yes	Yes	Yes	Yes
Florida	Yes	No	No	No	No
Georgia	Yes	Yes	Yes	Yes	No
Hawaii	No	Yes	Yes	Yes	No
Idaho	Yes	Yes	Yes	Yes	No
Illinois	Yes	Yes	Yes	Yes	No
Indiana	Yes	Yes	Yes	Yes	No
Iowa	Yes	No	Yes	Yes	Yes
Kansas	No	No	Yes	Yes	No
Kentucky	Yes	Yes	Yes	Yes	Yes
Louisiana	No	No	No	No	No
Maine	Yes	Yes	Yes	Yes	Yes
Maryland	Yes	Yes	Yes	Yes	Yes
Massachusetts	No	Yes	Yes	Yes	No
Michigan	Yes	No	Yes	No	Yes
Minnesota	Yes	Yes	Yes	No	Yes
Mississippi	Yes	Yes	Yes	Yes	Yes
Missouri	Yes	Yes	No	No	No
Montana	Yes	Yes	Yes	Yes	No
Nebraska	Yes	No	No	No	No
Nevada	Yes	Yes	Yes	Yes	No
New Hampshire	Yes	Yes	Yes	Yes	Yes
New Jersey	Yes	Yes	Yes	Yes	No
New Mexico	Yes	Yes	Yes	No	Yes
New York	Yes	No	No	No	Yes
North Carolina	Yes	Yes	Yes	Yes	Yes
North Dakota	Yes	No	Yes	No	Yes
Ohio	Yes	Yes	Yes	Yes	No
Oklahoma	No	Yes	Yes	Yes	No
Oregon	No	No	Yes	No	Yes
Pennsylvania	Yes	Yes	Yes	Yes	Yes
Rhode Island	Yes	No	No	No	No
South Carolina	Yes	Yes	Yes	Yes	No
South Dakota	Yes	Yes	Yes	Yes	No
Tennessee	No	Yes	Yes	Yes	Yes
Texas	Yes	No	Yes	Yes	No
Utah	Yes	Yes	Yes	No	Yes
Vermont	Yes	No	Yes	No	No
Virginia	Yes	Yes	Yes	Yes	No
Washington	Yes	No	Yes	Yes	No
West Virginia	Yes	Yes	Yes	Yes	No
Wisconsin	Yes	Yes	Yes	Yes	No
Wyoming	Yes	Yes	Yes	No	No
Total	40	33	43	33	18

Note: All states license EMS agencies providing 911 response with transport services.

Table 3.
Level of EMS Service Licensed by State EMS Offices, 2011

State	First Responder	EMT-Basic	EMT-Intermediate	EMT-Paramedic	Emergency Medical Dispatch
Alabama	No	Yes	Yes	Yes	No
Alaska	No	Yes	Yes	Yes	No
Arizona	No	Yes	Yes	Yes	No
Arkansas	No	Yes	Yes	No	No
California	No	Yes	Yes	Yes	No
Colorado	No	Yes	No	Yes	No
Connecticut	No	Yes	Yes	Yes	No
Delaware	No	Yes	No	Yes	Yes
Florida	No	Yes	No	Yes	No
Georgia	Yes	No	No	Yes	No
Hawaii	No	No	Yes	Yes	No
Idaho	Yes	Yes	Yes	Yes	No
Illinois	Yes	Yes	Yes	Yes	Yes
Indiana	Yes	Yes	Yes	Yes	No
Iowa	Yes	Yes	Yes	Yes	No
Kansas	No	Yes	Yes	Yes	No
Kentucky	No	Yes	No	Yes	No
Louisiana	No	Yes	Yes	Yes	No
Maine	Yes	Yes	Yes	Yes	Yes
Maryland	Yes	Yes	Yes	Yes	Yes
Massachusetts	No	Yes	No	Yes	No
Michigan	Yes	Yes	Yes	Yes	No
Minnesota	Yes	Yes	Yes	Yes	No
Mississippi	No	Yes	Yes	Yes	No
Missouri	No	No	No	Yes	No
Montana	No	Yes	Yes	Yes	No
Nebraska	Yes	Yes	Yes	No	No
Nevada	No	Yes	Yes	Yes	No
New Hampshire	Yes	Yes	Yes	Yes	No
New Jersey	No	Yes	No	Yes	No
New Mexico	Yes	Yes	Yes	Yes	Yes
New York	Yes	Yes	Yes	Yes	No
North Carolina	No	Yes	Yes	Yes	Yes
North Dakota	Yes	Yes	No	Yes	Yes
Ohio	Yes	Yes	Yes	Yes	No
Oklahoma	Yes	Yes	Yes	Yes	No
Oregon	No	Yes	Yes	Yes	No
Pennsylvania	Yes	Yes	No	Yes	Yes
Rhode Island	Yes	Yes	Yes	No	No
South Carolina	Yes	Yes	Yes	Yes	No
South Dakota	No	No	Yes	Yes	No
Tennessee	Yes	Yes	Yes	Yes	Yes
Texas	Yes	Yes	Yes	Yes	No
Utah	No	Yes	Yes	Yes	Yes
Vermont	No	Yes	Yes	Yes	No
Virginia	Yes	Yes	Yes	Yes	No
Washington	No	No	No	No	No
West Virginia	Yes	Yes	Yes	Yes	No
Wisconsin	Yes	Yes	Yes	Yes	No
Wyoming	No	Yes	Yes	Yes	No
Total	24	45	38	46	10

Table 4.
EMS Agency Numbers by Organizational Type, 2011

EMS Agency Organizational Type	States With Org. Type	Mean	Median	Min	Max	Sum
Fire-Department-Based	46	138.9	61.5	1	581	6,388 (40%)
Governmental, Non-Fire-Based	44	74.0	30	1	800	3,255 (21%)
Hospital-Based	43	21.0	14	1	100	901 (6%)
Private Non-Hospital-Based	45	86.9	40	1	823	3,910 (25%)
Tribal	19	4.4	3	1	25	84 (1%)
Emergency Medical Dispatch	11	33.9	27	1	81	339 (2%)
Other EMS Agency	7	139.7	63	1	683	978 (6%)
Total						15,865

**CA, IL, VA, and WA data unavailable

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was: "For each of the listed EMS agency organizational types, how many EMS agencies are currently licensed in your State?"

Forty Percent of All EMS Agencies Are Based in Fire Departments

EMS agencies are frequently described based upon the organizational structure from which they operate. EMS agencies within governmental organizations were labeled as Fire, Non-Fire, or Tribal. Business organizational structures can be nonprofit or for-profit-based. Examples of EMS agencies emanating from business organizations are grouped as either hospital-based or non-hospital-based. Among reporting States, 60% of EMS agencies operate within governmental structures; however data were unavailable for California, Illinois, Virginia, and Washington. The distribution of EMS agency by organizational type is shown in Table 4.

One-third of States Rely on Volunteer EMS Agencies for 911 Response and Transport

Volunteer EMS professionals play an integral role in providing prehospital care and function in multiple EMS roles. Although the term "volunteer" typically is interpreted to mean "no compensation," there is no formal definition of "volunteerism" in EMS. Many EMS agencies are considered to be volunteer if a portion of their staff are not compensated or if the EMS agency does not bill for its services. Volunteer EMS agencies are primarily involved in responding to 911 emergencies (with and without transport services). One-third of the States indicated that the majority of EMS agencies that respond to 911 emergencies with transport capability are considered to be volunteer agencies. Very few of the non-911-response EMS agencies were considered to be volunteer agencies. Table 5 shows the percentages of EMS agency types that could be considered volunteer in the opinion of the State EMS officials.

Table 5.

Percentage of EMS Agency Types Considered to Be Volunteer, by State, 2011

State	911 Response With Transport	911 Response Without Transport	Non-Emergency Transport	Specialty Transport Air	Specialty Transport Ground	Emergency Medical Dispatch
Alabama	1-10	1-10	0	0	0	0
Alaska	>50	>50	0	0	0	0
Arizona	0	0	0	0	0	0
Arkansas	11-50	1-10	0	0	0	0
California	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
Colorado	>50	0	0	0	0	0
Connecticut	>50	0	0	0	0	0
Delaware	>50	11-50	0	0	0	0
Florida	0	0	0	0	0	0
Georgia	0	0	0	0	0	0
Hawaii	0	0	0	0	0	0
Idaho	11-50	11-50	0	0	0	0
Illinois	0	0	0	0	0	0
Indiana	>50	>50	0	0	0	0
Iowa	11-50	11-50	0	1-10	1-10	1-10
Kansas	>50	0	0	0	0	0
Kentucky	1-10	0	0	0	0	0
Louisiana	1-10	0	0	0	0	0
Maine	11-50	>50	0	0	0	0
Maryland	11-50	0	0	0	0	0
Massachusetts	11-50	0	0	0	0	0
Michigan	0	0	0	0	0	0
Minnesota	>50	>50	0	0	0	0
Mississippi	1-10	0	0	0	0	0
Missouri	1-10	0	0	0	0	0
Montana	>50	>50	0	0	0	0
Nebraska	>50	>50	0	0	0	0
Nevada	>50	11-50	0	0	0	0
New Hampshire	11-50	>50	0	0	0	0
New Jersey	11-50	0	0	0	0	0
New Mexico	1-10	>50	0	0	0	0
New York	11-50	>50	0	0	0	0
North Carolina	11-50	11-50	0	0	0	0
North Dakota	>50	>50	0	0	0	0
Ohio	>50	11-50	0	0	0	0
Oklahoma	11-50	0	0	0	0	0
Oregon	11-50	0	0	0	0	0
Pennsylvania	11-50	>50	1-10	0	0	0
Rhode Island	11-50	1-10	0	0	0	0
South Carolina	1-10	11-50	0	0	0	0
South Dakota	>50	11-50	0	1-10	>50	11-50
Tennessee	0	0	0	0	>50	0
Texas	>50	11-50	0	0	0	0
Utah	1-10	11-50	0	0	0	0
Vermont	>50	>50	0	0	0	0
Virginia	>50	0	0	0	0	0
Washington	0	0	0	>50	>50	0>50
West Virginia	11-50	>50	0	0	0	0
Wisconsin	11-50	11-50	11-50	0	0	0
Wyoming	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown

Summary

The National EMS Assessment, sponsored by the Federal Interagency Committee on EMS, is the first comprehensive national assessment ever conducted of Emergency Medical Services systems in the United States.

Local EMS agencies are the smallest operational units within a State to be licensed by the State EMS Office. In 2011, it was estimated that there were more than 21,000 local licensed EMS agencies in the United States, an average of 7 EMS agencies per county-equivalent.

State EMS offices license several types of EMS agencies, based on the primary type of emergency service they provide. All 50 State EMS Offices license EMS agencies that respond to 911 emergencies and can transport patients to a hospital. Some States also license specialty care air medical transport (88% of States), 911 response without transport (82%), non-emergency medical transport (67%), and specialty care ground transport (67%).

State EMS Offices also license EMS agencies by the level of care provided by their EMS personnel. Forty-six States (92%) license EMS agencies at the EMT-Paramedic level, 45 States (90%) license EMT-Basic level agencies, 38 States (76%) license EMT-Intermediate level; 24 States (48%)

license First Responder agencies, and 10 States (20%) license Emergency Medical Dispatch Centers. More than half of all EMS agencies in the United States (51%) are licensed at the EMT-Basic level.

The organizational structure of an EMS agency can be described by its business organizational structure (for-profit or nonprofit) and by the governmental organization within which it functions (fire-based, non-fire, or tribal). The most common organizational structures reported for local EMS agencies are fire-department-based (40%), governmental, private, non-hospital-based (25%), and non-fire-department-based (21%).

Volunteer EMS providers play an integral role in providing prehospital care. While there is no standard definition of "volunteer," one-third of the States reported that the majority of EMS agencies involved with 911 response and transport are considered to be volunteer agencies.

Links to Full Report

Federal Interagency Committee on EMS. *2011 National EMS Assessment*. (Report No. DOT HS 811 723). Washington, DC: National Highway Traffic Safety Administration; 2012. Available at: www.ems.gov/pdf/811723-National-EMS-Assessment-2011.pdf.

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