



**2012  
EMS  
Needs  
Assessment**

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## Executive Summary

### Introduction and Overview

The state EMS Advisory Board (the Board), created in the executive branch of the Commonwealth of Virginia is responsible for advising the State Board of Health concerning the administration of the statewide emergency medical care system in Virginia. The Board, as part of its duties is interested in assessing the overall status and needs of the EMS agencies in Virginia. The Chairperson of the Legislation and Planning Committee of the Board created a small, ad hoc workgroup to identify and assess the greatest present and future needs facing EMS agencies in Virginia.

The workgroup was formed in May 2012 and met face to face and by Email to develop an on-line survey to assess the overall needs of Virginia's EMS agencies. The goal of the workgroup is to develop an initial survey that will provide some basic statistical information to the Office of EMS, regional EMS Councils, state EMS Advisory Board and the Legislative and Planning Committee regarding the overall needs of Virginia's EMS agencies. A on-going goal of the workgroup is to revise, update and repeat this survey in subsequent years to gather important and more detailed information about the EMS system in Virginia in order to identify needed resources, equipment, training and system priorities on an on-going basis.

The information gathered from these surveys will be used to plan and manage programs and services administered by the Virginia Office of EMS and the eleven (11) designated regional EMS Councils as well as assure current dedicated EMS funding is continued and possibly increased to assist and support EMS agencies and localities throughout Virginia.

Questions on the EMS Needs Assessment are grouped into seven (7) categories.

- o General EMS Agency Information
- o EMS Education and Training
- o EMS Agency Personnel and Staffing (recruitment, retention, overtime, hiring practices, etc.)
- o Facilities and Vehicles
- o Operating Budget and Funding, Ability to fund matching grant requirements
- o EMS Radio Communications Equipment/Capabilities
- o EMS Agency Top Needs

A representative from each EMS agency in Virginia that has an active account on the EMS Portal was requested to complete this on-line survey. Multiple survey responses from the same EMS agency were not permitted. If multiple responses from the same EMS agency were received, only the first submission was accepted.

Initial survey invitations were sent by Email to EMS agency representatives the week following Thanksgiving 2012. Only active, in-state, non-federal, non-industrial agencies were included; agencies that were predominately scheduled transport services were excluded. The initial deadline for submission of responses to the survey was extended once in order to provide EMS agencies an opportunity to respond. The survey closed on Friday, February 1, 2013.

Through assistance provided by OEMS field staff and regional EMS Councils, approximately twenty-five (25) EMS agencies that did not originally receive the survey invitation because they did not have an EMS Portal account were able to participate.

***Since non-responders and responders appear to be different based on the available characteristics, one must interpret the results presented below with caution.***

## **Results**

The final analysis dataset consisted of 252 (43.3%) respondents and 330 non-respondents. Response rates for the eleven (11) regional EMS Council service areas ranged from 25.8% to 58.5%.

Respondent agencies tended to have larger EMS call volumes, billed for services, had 911 response transport capability, and had an advanced life support (ALS) service level. Because less than 50% of the EMS agencies invited to participate in the assessment responded, the results of this survey is NOT representative of all EMS agencies in Virginia, making it difficult to generalize the results across the state.

Of those EMS agencies that responded to the survey, 83% felt the survey questions are beneficial and helpful to identify the needs of the EMS System in Virginia.

### General EMS Agency Information

43.2% of the respondents were from volunteer EMS agencies, followed by 33.2% from combination (volunteer and career) agencies, and 18.5% from career EMS agencies. A majority of the respondents indicated their primary response area was rural, followed by suburban and urban.

### EMS Education and Training

The number of active members and/or employees trained at various certification levels was provided by slightly more than half of the respondents. Hands-on training was the favored mode of EMS education delivery overall and across all regional EMS council service areas; classroom instruction ranked second.

A large majority (86.6 %) of the respondents indicated their members/employees were willing to travel up to 1 hour one way to obtain EMS education and/or training activities.

48.5% of the respondents ranked EMT training as the most needed level of training in their EMS agency, followed by Paramedic training (26%) and Intermediate training (14.3%).

39.3 % of the respondents indicated training and upgrading EMS personnel was their number one concern, followed by recruitment and retention of EMS personnel (32%) and adequate continuing education for EMS personnel (6.6%) as their top concern.

### EMS Personnel and Staffing

70.2% of the respondents indicated their EMS agency does not have a program to maintain basic fitness and health of their EMS personnel. The placement of exercise equipment in the station/crew hall is the most popular method utilized to maintain personnel fitness and health by those agencies that indicated they had a program.

Volunteer EMS agencies had more difficulty in finding adequate staffing than their non-volunteer counterparts. 52.4% of all respondents indicated they have difficulty covering shifts. Although the difficult to cover shifts varied by regional EMS Council service area, the overall consensus was that day shifts were the most difficult to staff. Nights and weekends, in that order, were identified as the next most difficult time periods EMS agencies experience covering shifts.

The reasons members of EMS agencies were unable to cover shifts were family demands (66.1%), conflicts with work (53.7%), and daycare/childcare/eldercare conflicts (37.3%).

#### Facilities, Vehicles and Equipment

The median number of ALS ground ambulances outnumbered BLS ground ambulances in all regional EMS service areas.

84.6% of the respondents indicated their EMS agency has 12-lead ECG capabilities; however, because so much data are missing it is difficult to know how commonly available the equipment is.

49.3% of the respondents that reported they have 12-lead ECG capabilities indicated they are capable of transmitting the ECG obtained in the field to the receiving hospital.

#### Operating Budget and Funding

The most commonly reported source of funding was local government, followed by EMS billing and then fundraising/donations.

64.4% of the respondents indicated they have applied for an RSAF grant within the last five (5) years. One (1) out of four (4) EMS agencies that provided information on RSAF grant applications noted that a lack of matching funds was a problem that either prevented them from applying for, or accepting, an RSAF grant.

58.4% of the respondents indicated their EMS agency bills the patient for services rendered. Of those agencies that bill for service, 80% of the agencies contract with a billing company to collect their fees.

#### EMS Radio Communications Equipment/Capabilities

The vast majority of respondents (90.2%) indicated they can communicate by radio with neighboring/adjoining EMS agencies, 93.1% of the EMS agencies can communicate by radio with local hospitals that routinely receive patients transported by their agency. However, approximately 2 out of 5 EMS agencies reported they do not have the same capability for non-local hospitals to which the EMS agency transports patients.

A 911 Center or Communications Department was the most predominant dispatch operations model overall. However, in some regional EMS Council service areas, Law Enforcement Departments were reported to be a close second.

The majority of EMS agencies reported using wireless and/or high speed internet connections.

### EMS Agency Top Needs

EMS Personnel was identified by EMS agencies as their overall number one need in every regional EMS Council service area. With the exception of ALS personnel, slightly more than twice as many volunteers were needed as paid personnel. EMT Basics were reported as the top training need within most of the regional EMS Council service areas and overall.

Respondents were asked to rank their top five (5) issues from a list of eleven (11) potential EMS concerns. Training personnel and recruitment/retention of personnel were the top two (2) needs overall and in all regional EMS service areas.

The overall rankings indicated the next most pressing need to be training, followed by vehicles, equipment, and facilities.

### **Observations**

The variability in response rates across the EMS Regions makes it difficult to apply the results to the individual regions and to the state as a whole. Numerical responses present the greatest problem in interpretation. For example, missing data from one very large EMS agency can result in a low estimate for the maximum number of active and certified EMS personnel or the numbers of types of vehicles. Ranking responses are also difficult to extrapolate for the same reasons. However, in those cases where a clear favorite is expressed, it might be reasonable to expect that this preference may indeed reflect the true state of affairs. Things get murkier when the number of choices outweighs the number of ranks to be assigned. Categorical responses offer only a little more hope. At least one knows a minimum value for a particular set of responses.

***The results in this report should be viewed as informational rather than actionable.***

### **Recommendations for the Next Survey**

- Decide the information to be collected and work with a (bio)statistician to design the survey
- Perform a census survey
- Use more aggressive follow up techniques with non-responders
- Utilize existing demographic data in the licensure database
- Allow for a focus on sub groups of EMS agencies
- Consider the use of quarterly “mini” surveys rather than one large annual survey
- Find a different and more effective mode for administering the survey

## Introduction and Overview

Virginia EMS agencies were asked to provide responses to a series of questions regarding available resources in calendar year 2011 as well as the needs they faced in calendar year 2012. A Survey Monkey tool, titled the *2012 Virginia EMS Needs Assessment*, was developed and deployed such that a single response could be provided for each EMS agency. The original Email request for input was sent on November 27, 2012 to the 570 agencies with EMS Portal accounts. Approximately 25 new EMS Portal accounts were opened after the initial Email message was sent; these new users were also invited to participate in the process.

Reminder Emails were sent out to those who had not yet responded on December 18, 2012 and January 7, 2013. In addition, those who had provided a partial response received a reminder email on January 7, 2013. The survey closed on February 1, 2013. At that time, 227 full responses and 58 partial responses had been received. A total of 294 agencies did not provide feedback and 3 agencies had previously opted out from receiving Survey Monkey assessments. The remaining agencies were lost to follow up because of bad Email addresses.

The responses were downloaded as a CSV file and read into both Excel 2007 and JMP 10.0 for analysis. Since the name of the responding agency was available, it was possible to compare the respondents with non-respondents (regardless of the reason) via agency demographic information on file in the Office of EMS (OEMS). This comparison was needed in order to determine the similarities and differences between the responding and non-responding agencies. If both groups were found to have similar demographic characteristics, the results described in this report *might* be viewed as being representative of each of the various EMS Regions and the state as a whole.

For the purposes of this analysis, only active, in-state, non-federal, non-industrial agencies were included. Furthermore, agencies that were predominantly scheduled transport services were excluded. The final analysis dataset consisted of 252 (43.3%) respondents and 330 non-respondents, for a total of 582 agencies. See **Table 1** for a breakdown of response status by EMS Region; response rates ranged from 25.8% to 58.5%.

EMS Region	Number of Agencies			Percentage of Agencies Responding
	Non-Respondents	Respondents	Total	
BREMS	23	8	31	25.8
CSEMS	34	19	53	35.8
LFEMS	21	15	36	41.7
NVEMS	23	18	41	43.9
ODEMSA	39	40	79	50.6
PEMS	17	24	41	58.5
REMS	30	15	45	33.3
SVEMS	51	29	80	36.3
TEMS	25	25	50	50.0
TJEMS	21	16	37	43.2
WVEMS	46	43	89	48.3
<b>Overall</b>	<b>330</b>	<b>252</b>	<b>582</b>	<b>43.3</b>

Respondents differed from non-respondents in several demographic measures; **Tables 2 and 3** contain summaries of these data. As can be seen in **Table 2**, respondent agencies tended to have larger call volumes than their non-respondent counterparts.

<b>Table 2. Estimated Number of Runs by Response Status</b>							
<b>EMS Region</b>	<b>Minimum</b>		<b>Median</b>		<b>Maximum</b>		
	<b>Non-Respondents</b>	<b>Respondents</b>	<b>Non-Respondents</b>	<b>Respondents</b>	<b>Non-Respondents</b>	<b>Respondents</b>	
BREMS	10	31	268	306	4,700	14,180	
CSEMS	0	10	268	400	7,950	2,500	
LFEMS	0	0	80	140	2,890	4,980	
NVEMS	0	0	330	1,610	32,000	63,600	
ODEMSA	0	0	360	1,368	6,640	59,950	
PEMS	0	0	480	349	1,330	22,730	
REMS	0	0	240	300	11,100	3,800	
SVEMS	0	0	425	675	10,000	10,150	
TEMS	0	0	100	230	27,840	55,380	
TJEMS	0	0	80	161	8,700	3,300	
WVEMS	10	0	140	600	5,700	19,500	
<b>Overall</b>	0	0	273	520	32,000	63,600	

Variability was also noted in the characteristics reported in **Table 3**. To avoid presenting an overwhelming amount of information only the “Yes” responses are provided for sections A, B, D, and E, and only the top two responses are summarized for section C below.

<b>Table 3. Percentages of Demographic Characteristics by Response Status</b>						
<b>EMS Region</b>	<b>(A) Agency Bills for Services</b>			<b>(B) Agency has 911 Response Transport Capability</b>		
	<b>Overall</b>	<b>Non-Respondents</b>	<b>Respondents</b>	<b>Overall</b>	<b>Non-Respondents</b>	<b>Respondents</b>
BREMS	77.4	73.9	87.5	87.1	82.6	100.0
CSEMS	32.1	35.3	26.3	58.5	64.7	47.4
LFEMS	25.0	23.8	26.7	83.3	76.2	93.3
NVEMS	22.0	0.0	50.0	70.7	60.9	83.3
ODEMSA	53.2	51.3	55.0	75.9	71.8	80.0
PEMS	56.1	64.7	50.0	80.5	76.5	83.3
REMS	66.7	73.3	53.3	95.6	93.3	100.0
SVEMS	70.0	64.7	79.3	82.5	84.3	79.3
TEMS	50.0	56.0	44.0	80.0	80.0	80.0
TJEMS	40.5	42.9	37.5	56.8	66.7	43.8
WVEMS	51.7	43.5	60.5	76.4	63.0	90.7
<b>Overall</b>	<b>50.9</b>	<b>49.4</b>	<b>52.8</b>	<b>77.0</b>	<b>74.5</b>	<b>80.2</b>

<b>Table 3. Percentages of Demographic Characteristics by Response Status (continued)</b>						
<b>EMS Region</b>	<b>(C) Organizational Type</b>					
	<b>Community, Non-profit</b>			<b>Fire Department</b>		
	<b>Overall</b>	<b>Non-Respondents</b>	<b>Respondents</b>	<b>Overall</b>	<b>Non-Respondents</b>	<b>Respondents</b>
BREMS	67.7	69.6	62.5	22.6	21.7	25.0
CSEMS	39.6	44.1	31.6	60.4	55.9	68.4
LFEMS	25.0	14.3	40.0	63.9	71.4	53.3
NVEMS	12.2	21.7	0.0	78.0	73.9	83.3
ODEMSA	48.1	46.2	50.0	39.2	35.9	42.5
PEMS	36.6	47.1	29.2	46.3	29.4	58.3
REMS	31.1	26.7	40.0	64.4	73.3	46.7
SVEMS	62.5	64.7	58.6	21.3	17.6	27.6
TEMS	44.0	44.0	44.0	46.0	48.0	44.0
TJEMS	40.5	52.4	25.0	48.6	33.3	68.8
WVEMS	43.8	41.3	46.5	36.0	39.1	32.6
<b>Overall</b>	<b>42.8</b>	<b>44.5</b>	<b>40.5</b>	<b>45.2</b>	<b>43.3</b>	<b>47.6</b>
<b>EMS Region</b>	<b>(D) Organizational Status is All Volunteer</b>			<b>(E) Service Level is EMT Paramedic and Above</b>		
	<b>Overall</b>	<b>Non-Respondents</b>	<b>Respondents</b>	<b>Overall</b>	<b>Non-Respondents</b>	<b>Respondents</b>
	BREMS	77.4	78.3	75.0	80.6	73.9
CSEMS	83.0	85.3	78.9	50.9	50.0	52.6
LFEMS	75.0	85.7	60.0	69.4	71.4	66.7
NVEMS	56.1	73.9	33.3	61.0	47.8	77.8
ODEMSA	46.8	51.3	42.5	75.9	71.8	80.0
PEMS	63.4	70.6	58.3	78.0	82.4	75.0
REMS	66.7	63.3	73.3	73.3	66.7	86.7
SVEMS	61.3	68.6	48.3	67.5	56.9	86.2
TEMS	64.0	68.0	60.0	86.0	88.0	84.0
TJEMS	70.3	61.9	81.3	67.6	76.2	56.3
WVEMS	78.7	91.3	65.1	68.5	60.9	76.7
<b>Overall</b>	<b>66.7</b>	<b>72.7</b>	<b>58.7</b>	<b>70.4</b>	<b>65.8</b>	<b>76.6</b>

Agencies that billed for services, had 911 response transport capability, and whose service level was EMT paramedic and above were more likely to complete the survey. EMS Agencies that were community based and those that were all volunteer were less likely to respond to the survey.

**Since non-responders and responders appear to be different based on the available characteristics, one must interpret the results presented below with caution.** That is, the answers provided by the respondents *may not* be representative of the EMS agencies in their respective EMS Regions or for the state as a whole. Whenever possible, the number of non-respondent agencies is included so that the magnitude of missing data can be taken into account.

## Results

In addition to missing data from non-respondents, some questions were not answered by all of the respondents. When this was the case, these missing values were termed “blank” in order to differentiate them from the lack of data for non-respondents.

Because of their size and configuration, the tables and figures are included at the end of the report. Please note that several of the tables are longer than one page. See the **Table of Contents** for the exact page numbers on which each section begins.

### General EMS Agency Information

Several of the questions dealt with the same factors discussed in the previous section of this report and are not included here. In addition, because of an apparent misinterpretation of the questions by a number of respondents, the data for percentage of calls outside the area and the percentage of calls outsourced were not included in this report.

**Figures 1 through 3** contain a summary of the remaining EMS agency demographic information. The data are presented as column charts representing the percentages of all 582 agencies included in this analysis and as counts of agencies in tabular form. Each of the figures is structured so that the largest value is at the bottom (*i.e.*, most dense, largest population, greatest area). The two top most values represent the numbers of non-respondents, followed by the number of blanks (as defined above). *This approach will be used for all categorical responses in this section of the report.*

EMS agencies were allowed to choose more than one response for the data presented in **Figure 1**, resulting in the need for “mixed” categories. The 11 regional EMS Councils are composed of very different service area types, ranging from largely urban/suburban to mostly rural with some suburban. Note that over half of the data are missing, so the *actual* overall patterns may be different. As would be expected, the distributions of the sizes of the population served (**Figure 2**) reflect the results presented in **Figure 1**. The inverse relationship between the square mileage of an EMS agency’s primary response area (**Figure 3**) is consistent with the information summarized in **Figures 1 and 2**.

### EMS Agency Personnel

Agencies were asked to report the number of various types of personnel by membership/employment status. In addition to indicating if personnel were paid or volunteer, a third status of “paid volunteer” was used. This latter group included personnel that were paid per call or received a stipend; they are labeled using “Stipend” in the results presented in **Table 4**. The number of blanks as well as the minimum, median, and maximum of the responses are provided. *This approach will be used for all numerical responses in this section of the report.*

When reviewing the data tables, it might be helpful to refer to **Table 1** in order to get an idea of how much information is missing. For example, of the 252 respondents to the survey, 102 (40.5%) left the field for *First Responder – Paid* blank. This means that the minimum, median, and maximum values reported are based on 150 responses. BREMS had 5 of 8 (62.5%) responses for this same value as blanks. Only 3 values were reported; since the minimum,

median, and maximum values are all 0, we know that the only reported value was 0. The median values for the number of paid emergency medical personnel of all types needed were roughly the same as those for volunteer staff overall. The values for needed stipend staff were generally lower.

Information on whether or not agencies had personal fitness, recruitment, and/or retention programs is summarized in **Figures 4 through 6**. The responses regarding personal fitness programs were combined so that the data could be presented in a single figure (**Figure 4**). Respondents were allowed to indicate multiple methods for providing personal fitness programs. Responses that include “Other,” “Equip,” and/or “Subsidy” were used to describe various facets of personal fitness programs. “Equip” means that the agency has exercise equipment in the station or crew hall. “Subsidy” is used to represent agency subsidized health club memberships. “Other” refers to a variety of approaches, including the use of off-site exercise facilities at local schools, city/county buildings, military bases, and hospitals (N = 10). Four agencies indicated the availability of wellness and/or smoking cessation programs, two noted the use of personal trainers, and seven reported a variety of other approaches (*e.g.*, peer fitness programs, allowing time to exercise during the work day, annual agility tests).

As can be seen in **Figure 5**, most of the agencies that reported having a recruitment program also had a coordinator for the program. Similar results can be seen for retention programs and coordinators in **Figure 6**. Comparison of agencies providing an answer to both questions (details not shown) revealed that only 6.1% (7/115) of agencies without a recruitment program had a retention program while 69.8% (67/96) of the agencies with a recruitment program also had a retention program.

### Facilities, Vehicles, and Equipment

**Table 5** contains a summary of the numbers of vehicles, by type, reported by respondents. Focusing on the median values, ALS ground ambulances outnumbered BLS ground ambulances in all regions. Other commonly reported vehicles included quick response ALS (non-transport) vehicles, command vehicles (SUV), “other” vehicles, quick response BLS (non-transport) vehicles, and heavy technical rescue vehicles.

The ability of agencies to perform 12-lead ECGs, as well as whether or not the resulting data can be transmitted to the hospital, is presented in **Figure 7**. While the majority of the responding agencies reported having 12-lead ECG equipment, there is so much missing data that it is difficult to know how commonly available the equipment is.

### Operating Budget Information

Sources of funding, reported as percentages of the agency’s total budget, are summarized in **Table 6**. The most commonly reported source of funding was local government, followed by EMS billing, and fundraising/donations. Much variability was noted in reported funding sources, both across EMS Regions and within them.

**Figures 8 and 9** contain information on grant seeking behavior. **Figure 8** focuses on the RSAF Grant Program while **Figure 9** addresses other, unnamed sources of grant funding. Approximately three-fourths of the overall respondents provided feedback for these questions. Grant applicants outnumbered non-applicants by a ratio of 2:1. This pattern held true for both RSAF and non-RSAF grant programs. One (1) out of four (4) agencies that provided information on RSAF grant applications noted that a lack of matching funds was a problems that either prevented them from applying for, or accepting, an RSAF grant. The patterns within the individual EMS Regions varied widely.

### Communications

Agencies were asked about their ability to communicate by radio with various entities. **Figure 10** provides a summary of radio communication abilities with neighboring or adjoining EMS agencies with whom the agency regularly responds to incident scenes. The vast majority of respondents indicated that this mode of communication was available. Similar results were noted for radio communication with local hospitals to which the agency transports patients (see **Figure 11**). However, approximately 2 out of 5 agencies reported they do not have the same capability for the non-local hospitals to which the agency transports patients (see **Figure 12**). The degree of this inability to communicate via radio varied across EMS Regions.

Respondents also provided information on the source for dispatch operations; these data are summarized in **Figure 13**. A 911 Center or Communications Department was the most predominant dispatch operations model overall. However, in some EMS Regions, Law Enforcement Departments were reported to be a close second. In addition to these two choices, other approaches included self-dispatch (N = 6) and other types of dispatch centers (N = 3).

A variety of methods for connecting to the Internet were described. See **Figure 14** for a summary of these responses. The majority of agencies reported using wireless and/or high speed internet connections.

### EMS Agency Roles/Training

Agencies were asked how many active members and/or employees were trained at the EMS First Responder, EMT Basic, EMT Enhanced, EMT Intermediate, and EMT Paramedic certification levels. See **Table 7** for a summary of the responses. A large number of agencies did not respond to this question. EMS First Responders had the most missing data (94/252 = 37.3% missing overall) while EMT Basics had the least (53/252 = 21.0% missing overall).

The results for a similar question, focused this time on the number of members and/or employees needing training at these same certification levels, can be found in **Table 8**. The response rates were even lower for this question than for the previous one. EMS First Responders had the most missing data (122/252 = 48.4% missing overall) while EMT Basics had the least (90/252 = 35.7% missing overall).

Agencies were also asked to rank seven delivery modes for EMS educational opportunities, using 1 as the most preferred method and 7 as the least. A number of different approaches are available for scoring this type of response. The method used in this report involves multiplying the number of agencies within an EMS Region choosing a particular ranking by the reciprocal of the ranking. The number of blanks is multiplied by zero. The resulting

values are then summed. For example, the counts for the rankings for the classroom setting for BREMS were #1 = 0, #2 = 2, #3 = 1, #4 = 0, #5 = 1, #6 = 1, #7 = 0, and blank = 3. The score for this item would be calculated as follows:

$$\text{Score} = 0*(1/1) + 2*(1/2) + 1*(1/3) + 0*(1/4) + 1*(1/5) + 1*(1/6) + 0*(1/7) + 3*0 = 1.700$$

The highest possible score is equal to the total number of respondents; the lowest possible score is zero. The larger the score, the more favored the choice. *This approach will be used for all ranking responses in this section of the report.*

**Table 9** contains a summary of the results of EMS education delivery modes for all of the EMS Regions. The responses are listed in overall descending order of preference. Hands-on training was favored overall and across the EMS Regions. Classroom instruction ranked second overall and in most of the EMS Regions. One advantage to summarizing preferences is that the score values can provide some insight into the amount of agreement and/or diversity of opinion. Using BREMS as an example, hands on training is clearly preferred (score = 7.000 out of a possible 8.000). The scores for the other training methods range from 1.010 to 2.117, indicating some degree of preference, but no clear favorite. This is another benefit to this approach to summarizing ranking data – ties are virtually eliminated, thus allowing for distinct rankings of each option.

Agencies were also asked how much time their members and/or employees were willing to travel one-way to obtain EMS education and/or continuing education and training. See **Figure 15** for a summary of these data. Very few agencies reported their staff members being unwilling to travel more than hour for education and/or training activities (15/252 = 6.0% overall). Paradoxically, almost the same number of agencies reported that time is not an issue (13/252 = 5.2% overall). The response patterns varied considerably across the EMS Regions.

Questions on problems with covering shifts, the types of shifts that suffer from coverage issues, and the reasons for these difficulties were also included in the questionnaire. **Figures 16, 17, and 18**, respectively, contain the responses to this group of questions. Volunteer agencies had more difficulty in finding adequate staffing than their non-volunteer counterparts. Using data from only those agencies that responded to the question (N = 208), 70.1% (82/117) of volunteer agencies indicated having staffing problems, while only 8.3% (3/36) of non-volunteer agencies reported any problems in this area. As might be expected, percentage of EMS agencies with both volunteer and non-volunteer staff having scheduling difficulties was between these two values (28/55 = 50.9%).

Note that it was possible to choose more than one response for the data presented in **Tables 17 and 18**. As a result, a different type of graph was needed. Please note that these questions were answered by those agencies experiencing staffing problems (the “Yes” values in **Figure 16**). These agencies reported at least one answer for each question. Although the difficult to cover shifts varied by EMS Region (**Figure 17**), the overall consensus was that day shifts are the most difficult to staff. Family demands were cited as the primary reason for difficulty in covering shifts by nearly every EMS Region (**Figure 18**). Conflicts with employers and daycare/childcare/eldercare were also noted to be pervasive issues.

The three final questions in this section of the needs assessment dealt with billing for services rendered, the use of public fund raising campaigns, and the methods used to restock medications. See **Figures 19, 20, and 21**, respectively, for summaries of these data. While the patterns varied by EMS Region, 98/122 (80.3%) of agencies that billed for services

contracted with an outside entity for this function (**Figure 19**). Sources of non-grant funding (**Figure 20**) were also quite varied when viewed at the EMS Region level. However, when considered as a whole, nearly the same number of EMS agencies billed for services, did fund raising, or used both techniques. The method used to restock medications varied considerably by EMS Region (**Figure 21**). However, regional medication restocking programs were the primary approach used within all EMS Regions.

### EMS Agency's Top Needs

The final section of the survey asked for input on several needs. A broad assessment of needs was solicited by asking respondents to rank five different equipment needs on a scale of 1 to 5, with 1 being the first priority. **Table 10** contains a summary of these data. EMS Personnel were the most highly ranked need in every EMS Region. The overall rankings indicated the next most pressing need to be training, followed by vehicles, equipment, and facilities. This pattern varied considerably among the EMS Regions.

EMS Personnel needs for the next two years were assessed by asking for the number of paid and volunteer BLS, ALS, and support personnel the agency needed. See **Table 11** for this numerical information. With the exception of ALS personnel, slightly more than twice as many volunteers were needed as paid staff. Approximately half of the respondents left the six fields blank. It is not known if this represents lack of need (which should have been reported as a zero) or lack of information. As has been the case through this report, the patterns varied considerably among the 11 EMS Regions.

EMS Agencies were asked to rank their top 3 training needs from a list of seven different possibilities. The results of these rankings are displayed in **Table 12**. The values are listed in descending overall level of preference. Training for EMT Basic personnel was the overall top need, far surpassing all other levels of personnel. EMT Basic was also reported as the top training need within most of the EMS Regions.

Finally, a list of 11 potential EMS concerns was presented; respondents were asked to rank their top 5 issues. **Table 13** contains a summary of these data. Training personnel and recruitment/retention were the top two needs overall and in all 11 EMS Regions. However, the ranking (training personnel listed first *versus* second) varied by region.

### Feedback on Format and Completeness of the Needs Assessment Tool

Feedback on the questionnaire itself was also solicited. Given the nature of these data, as well as the relative similarity of responses among EMS Regions, overall results will be presented here. Approximately 1 in 6 of the respondents left each of the four questions blank. Of those that responded to the survey, 83% felt the survey questions are beneficial and helpful to identify the needs of the EMS System in Virginia while only 1 in 15 held the opposite view. Seven out of 10 respondents reported that the questions were easy to understand, 1 in 10 were neutral on the topic, and only 2 respondents (fewer than 1 in 100) felt that the questions were difficult to understand. Finally, three-fourths of those who provided feedback felt that the online tool was easy to complete, 1 in 16 were neutral on the subject, and only 5 (approximately 1 in 50) held a negative opinion.

Fifty (50) respondents provided one or more comments. Approximately 1 in 3 people providing written feedback expressed skepticism about the data being put to good use and/or being disseminated for use by agencies and EMS Regional Councils. Slightly more than 1 in 4

provided comments about how the questionnaire might be made better. Nearly 1 in 10 of those providing feedback felt that the survey did not apply to their type of EMS agency for a variety of reasons. A similar number of people expressed concerns about issues related to personnel and training, such as the apparent drift away from volunteerism and the increasing educational demands for EMS certified staff. Finally, there were 3 specific comments, two about the unfairness of the RSAF grant selection process and one about the unfriendly nature of the reporting tool and support staff associated with VPHIB.

## Observations

The variability in response rates across the EMS Regions makes it difficult to apply the results to the individual regions and to the state as a whole. The EMS Regions with the highest response rates (PEMS, ODEMSA, and TEMS) may be able to make better use of their results than those with the lowest response rates (BREMS and REMS).

Numerical responses (**Tables 4 – 8 and 11**) present the greatest problem in interpretation. For example, missing data from one very large agency can result in a low estimate for the maximum number of active and certified personnel (**end of Table 4**) or the numbers of types of vehicles (**Table 5**). Thus, these results need to be considered as *possible* minimums, medians, and maximums rather than *actual* values.

Ranking responses (**Tables 9, 10, 12, and 13**) are also difficult to extrapolate for the same reasons. However, in those cases where a clear favorite is expressed (*e.g.*, hands on training in all 11 EMS Regions – see **Table 9**), it is not unreasonable to expect that this preference may indeed reflect the true state of affairs. Things get murkier when the number of choices outweighs the number of ranks to be assigned (*e.g.*, **Tables 12 and 13**).

Categorical responses (**Figures 1 – 21**) offer only a little more hope. At least one knows a minimum value for a particular set of responses. For example, from **Figure 7**, we know that 7 of the 31 BREMS agencies have access to 12-lead ECG equipment and can also transmit data ahead to the hospital; one agency did not answer the question. There were 8 respondents and 23 non-respondents for this EMS Region. So is it 7/7 (100.0%), 7/8 (87.5%), or 7/31 (22.6%) of the agencies that have this ability? The corresponding values for PEMS would be 10/19 (52.6%), 10/24 (41.7%), or 10/41 (24.4%). The latter set of numbers has less variability (24.4% to 52.6% for a range of 28.2%) when compared to the former (22.6% to 100.0% for a range of 77.4%). This is a result of the relative response rates, 25.8% for BREMS and 58.5% for PEMS. It is not unreasonable to think that BREMS may have a higher rate of access to 12 lead ECG equipment/data transmission than PEMS, but the actual values cannot be reliably determined with the data at hand.

The bottom line is that one should view these results as informational rather than actionable. Things rarely work out perfectly the first time a project like this is undertaken. The key is to learn from the experience and to use the knowledge to do a better job the next time.

## Recommendations for the Next Survey

**Decide the information to be collected and work with a (bio)statistician to design the survey.** Some of the problems encountered during the analysis of the data could have been prevented by asking the questions differently.

**Perform a census survey.** The number of Virginia EMS agencies is small enough that all EMS agencies should be included in the process. Administration of sample surveys is complicated. The Commonwealth of Virginia has a varied mix of urban, suburban, and rural service areas. In addition, each EMS Region has a wide array of service area types and the characteristics of the EMS Agencies within these regions are also quite diverse. All of these variables make it challenging to create stratified random samplings of all relevant subgroups. The volume of surveys that need to be distributed is greater with a census survey, but determining who should receive a survey is very clear – *everyone*. The only disadvantage to performing a census survey in this population is that more effort is required to follow up on non-respondents.

A well-designed sample survey can provide accurate results. However, many people tend to believe the results more readily, and may be more willing to take action, when everyone has had an opportunity to take part in the process. When survey results are favorable there tends to be a feeling that the sampling strategy was effective. In the opposite situation, people tend to “discount” the results and claim that the results were based on a poor sample. While great lengths may have been taken to ensure a representative sample, some people may still question the selection process and therefore be resistant to taking action. Belief in the results and willingness to act upon them go hand in hand.

**Use more aggressive follow up techniques with non-responders.** Instead of relying totally on passive methods such as follow-up emails, take advantage of other stakeholders in the process. For example, the regional EMS Councils could be asked to follow up on the non-respondents within their regions. Social media and the announcement capabilities of VPHIB might also be used to bring attention to the process.

**Make use of existing demographic data in the licensure database.** That is, provide the agency’s current information and ask for updates and/or corrections. This approach should be less of a burden to the responding agencies than asking for the information outright.

**Allow for a focus on sub groups of agencies.** Some questions should be asked of all EMS agencies, but others should be tailored to agency characteristics such as urban/suburban/rural locations, volunteer/non-volunteer status, and transport status.

**Consider the use of quarterly “mini” surveys rather than one large annual survey.** This would be easier on the respondents and require less time to analyze, thus allowing for timelier reporting of results.

**Find a different and more efficient mode for administering the survey.** One problem with Survey Monkey is that if a person has opted out of one survey, he or she is then opted out of all future surveys. Also, the data output is messy and difficult to analyze.

Figures and Tables

General EMS Agency Information

Figure 1. Type of Response Service Area by EMS Region

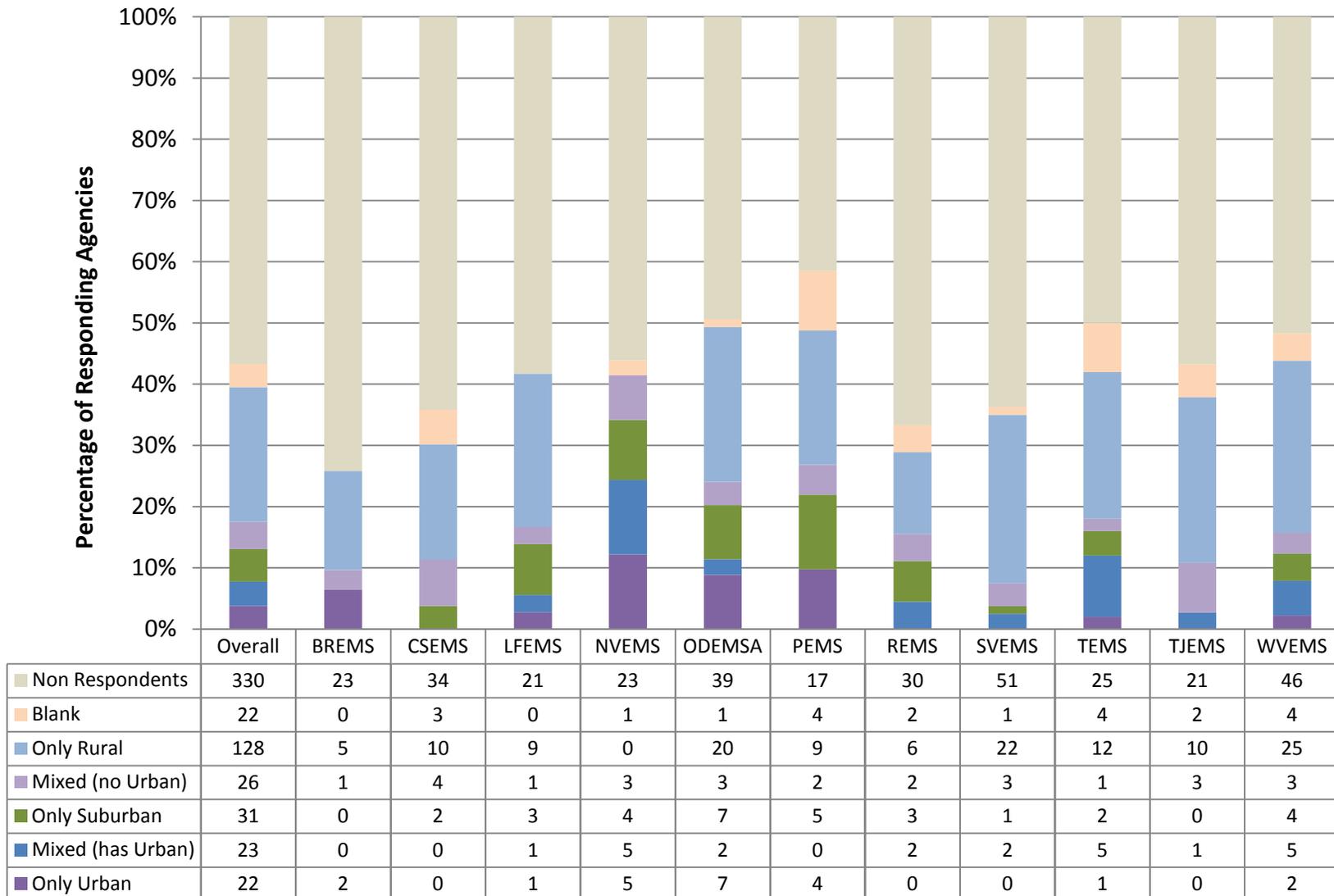
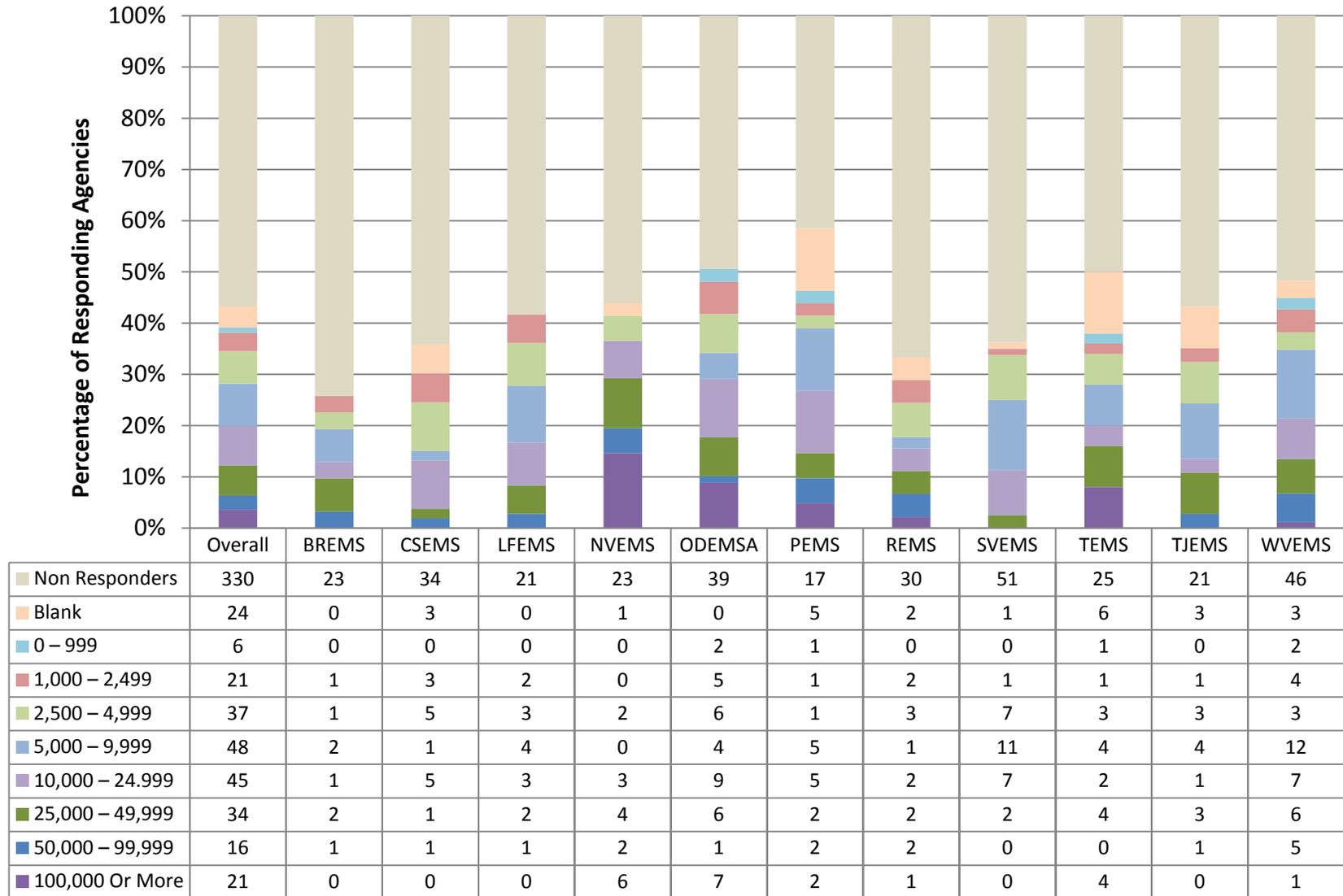
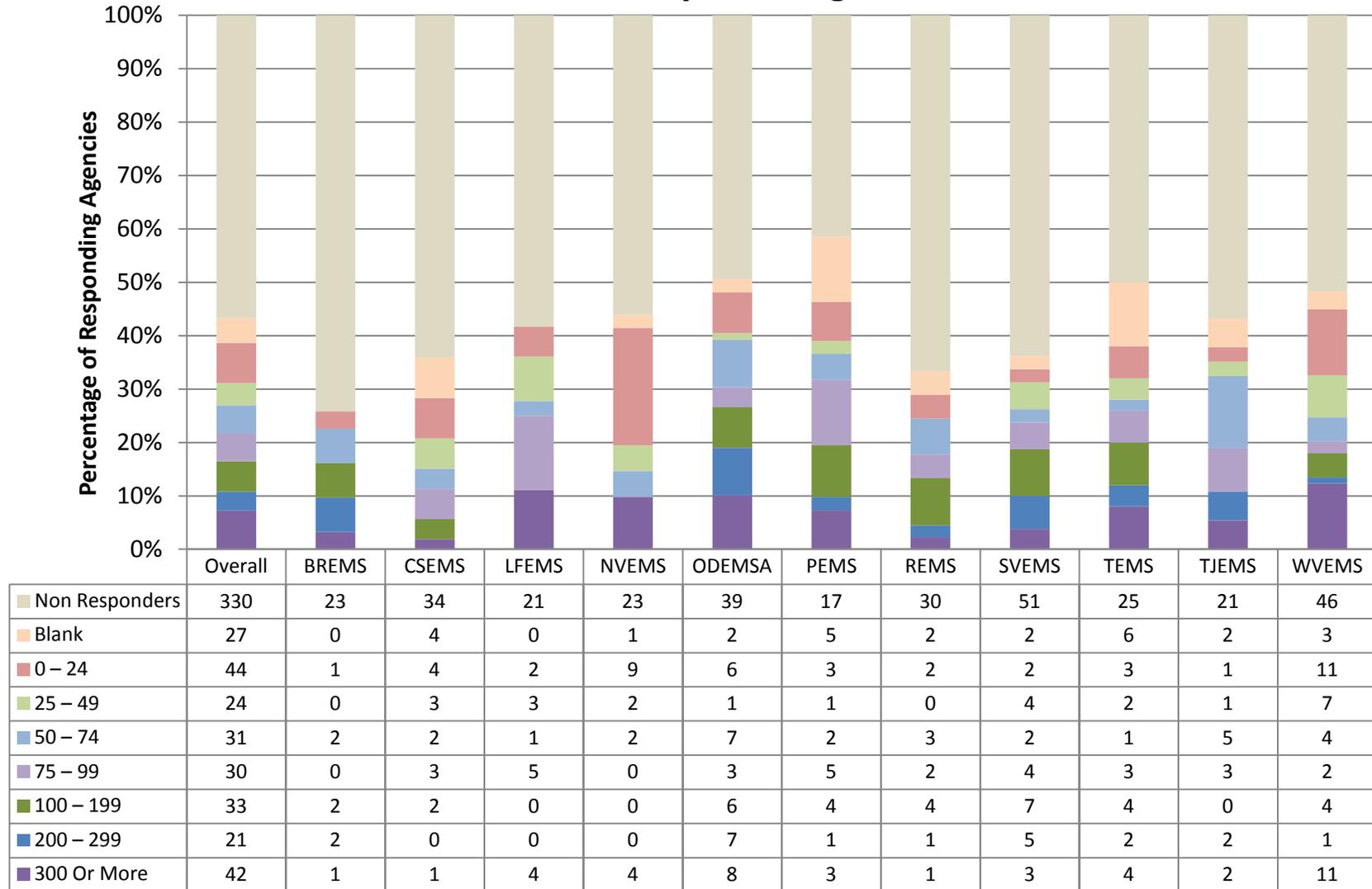


Figure 2. Population Served (Count) by EMS Region



**Figure 3. Square Mileage of EMS Agency Primary Response Area by EMS Region**



EMS Agency Personnel

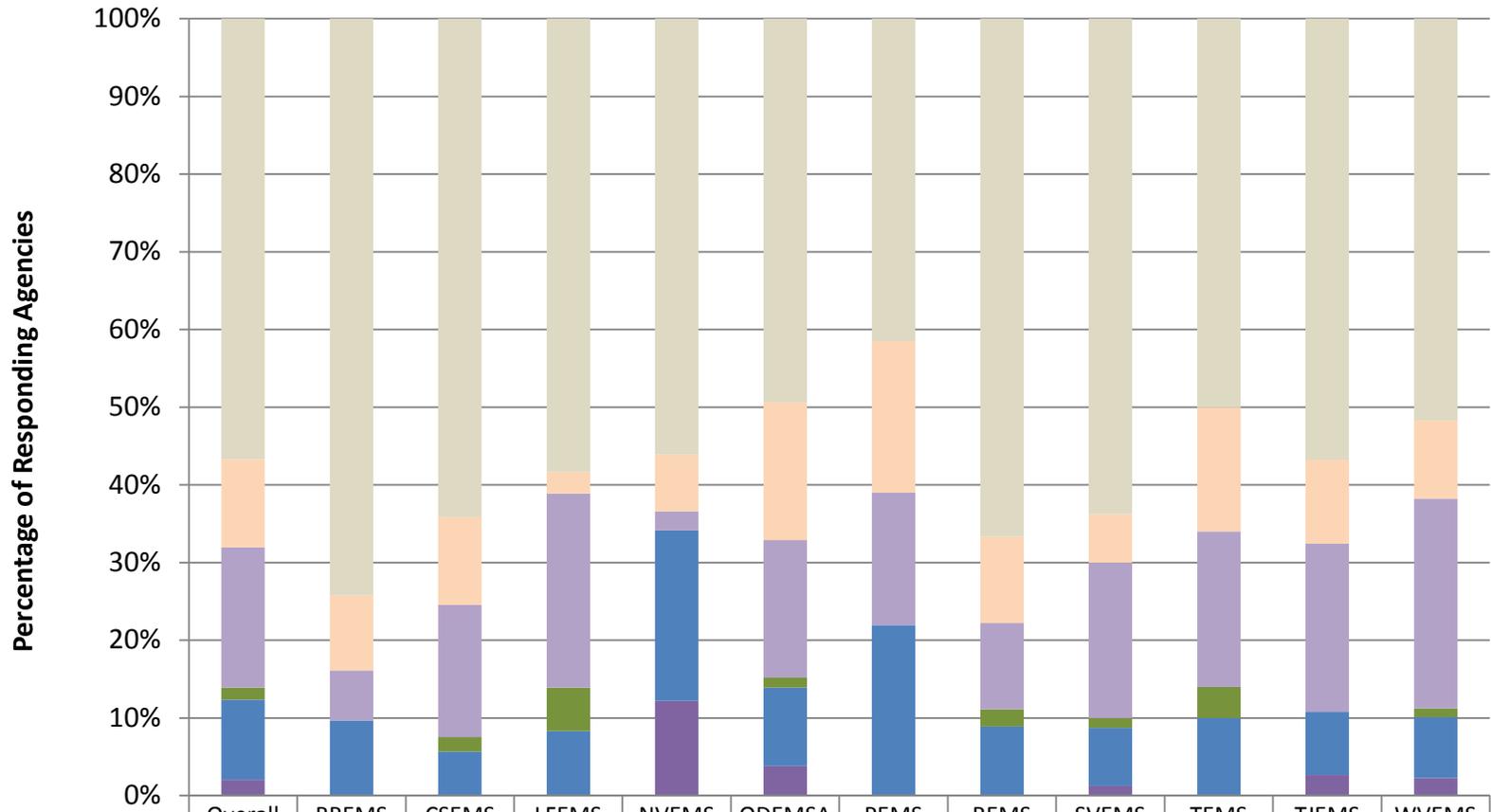
Table 4. Number of Types of Personnel and Payment Status by EMS Region												
	Overall	BREMS	CSEMS	LFEMS	NVEMS	ODEMSA	PEMS	REMS	SVEMS	TEMS	TJEMS	WVEMS
<b>First Responder - Paid</b>												
Blank (Count)	102	5	8	4	4	19	11	4	6	12	10	19
Minimum (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Median (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Maximum (Value)	530	0	27	15	69	530	23	23	12	2	0	28
<b>First Responder - Stipend</b>												
Blank (Count)	110	5	8	5	5	19	13	4	7	13	10	21
Minimum (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Median (Value)	0	0	1	0	0	0	0	0	0	0	2	0
Maximum (Value)	199	4	86	30	130	199	25	3	21	35	24	45
<b>First Responder - Volunteer</b>												
Blank (Count)	82	3	5	4	4	16	11	4	4	10	5	16
Minimum (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Median (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Maximum (Value)	530	0	27	15	69	530	23	23	12	2	0	28
<b>EMT Basic - Paid</b>												
Blank (Count)	91	4	8	4	4	13	9	3	7	11	10	18
Minimum (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Median (Value)	1	0	0	0	0	0	0	0	0	0	0	0
Maximum (Value)	26	0	1	0	0	10	0	0	26	0	0	8
<b>EMT Basic - Stipend</b>												
Blank (Count)	115	5	9	6	7	17	13	4	8	14	10	22
Minimum (Value)	0	0	0	0	0	0	0	0	0	0	5	0
Median (Value)	0	10	9	13	12	12	11	10	5	11	11	11
Maximum (Value)	300	34	65	23	180	109	106	45	206	300	103	63
<b>EMT Basic - Volunteer</b>												
Blank (Count)	63	1	5	3	5	13	8	3	2	9	4	10
Minimum (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Median (Value)	10	1	0	2	19	1	7	0	4	1	0	2
Maximum (Value)	1,000	69	29	24	1,000	330	82	61	30	30	31	129

**Table 4. Number of Types of Personnel and Payment Status by EMS Region** *(continued)*

	Overall	BREMS	CSEMS	LFEMS	NVEMS	ODEMSA	PEMS	REMS	SVEMS	TEMS	TJEMS	WVEMS
<b>EMT Enhanced - Paid</b>												
Blank (Count)	103	5	8	4	6	17	11	4	7	13	10	18
Minimum (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Median (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Maximum (Value)	85	0	16	0	0	13	1	46	25	21	0	85
<b>EMT Enhanced - Stipend</b>												
Blank (Count)	114	5	9	5	7	19	13	4	7	14	10	21
Minimum (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Median (Value)	0	4	2	2	0	1	1	1	0	3	2	2
Maximum (Value)	47	8	8	10	2	7	9	5	4	47	17	12
<b>EMT Enhanced - Volunteer</b>												
Blank (Count)	76	2	6	3	5	15	10	4	4	10	5	12
Minimum (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Median (Value)	1	0	0	3	0	0	0	0	1	1	0	0
Maximum (Value)	164	19	6	25	2	24	13	2	4	164	4	18
<b>EMT Intermediate - Paid</b>												
Blank (Count)	101	5	9	4	5	18	9	3	7	13	10	18
Minimum (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Median (Value)	1	0	0	0	0	0	0	0	0	0	0	0
Maximum (Value)	11	0	5	0	0	0	2	11	4	6	0	4
<b>EMT Intermediate - Stipend</b>												
Blank (Count)	117	5	9	5	7	21	13	4	7	15	10	21
Minimum (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Median (Value)	0	1	1	1	0	2	2	1	0	2	3	2
Maximum (Value)	18	5	6	5	10	16	16	7	10	15	18	9
<b>EMT Intermediate - Volunteer</b>												
Blank (Count)	78	2	8	2	5	17	10	4	3	9	7	11
Minimum (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Median (Value)	1	0	0	2	5	1	6	0	1	3	0	3
Maximum (Value)	174	28	8	17	144	50	174	14	10	15	13	61

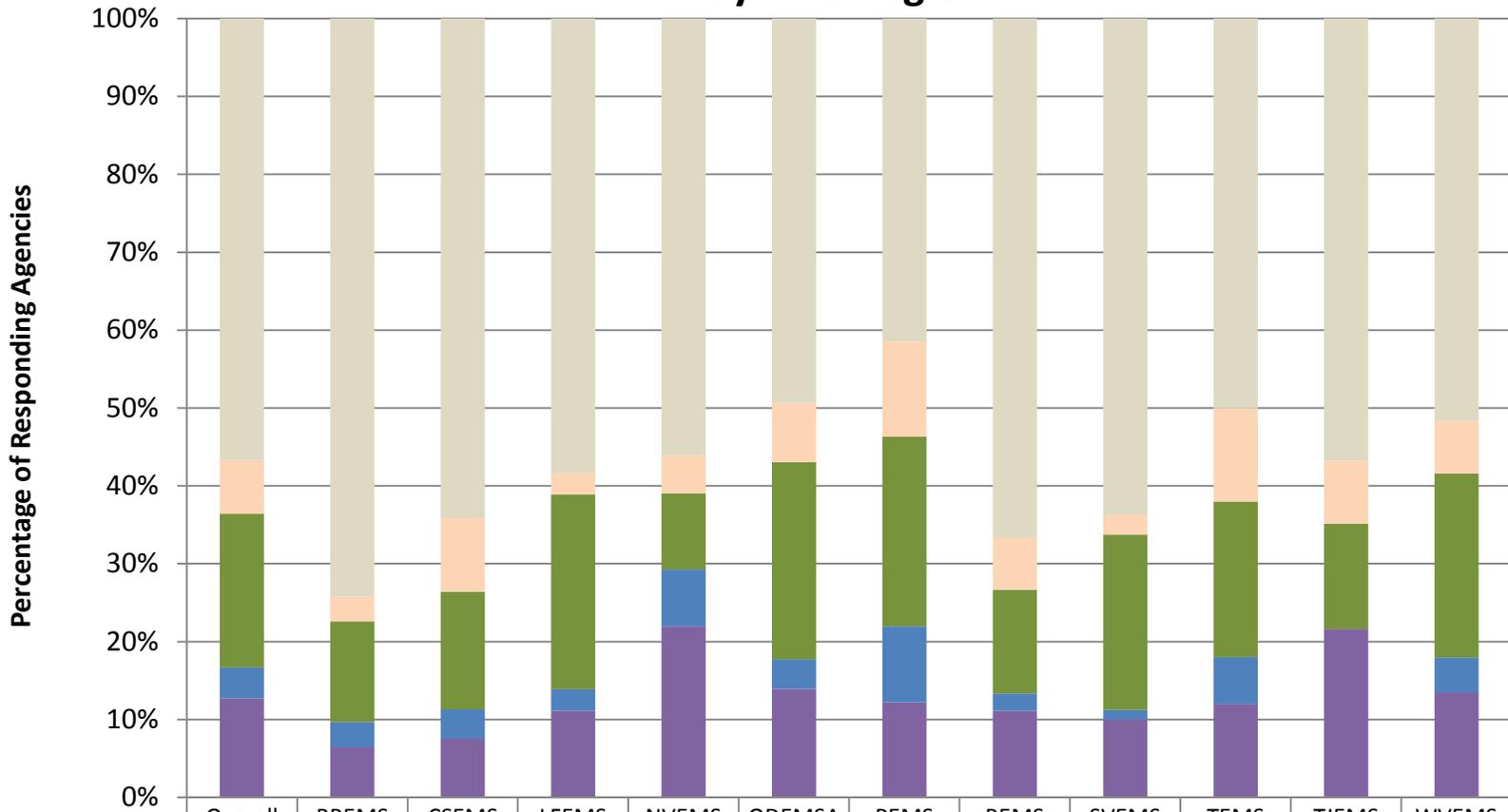
<b>Table 4. Number of Types of Personnel and Payment Status by EMS Region</b> <i>(continued)</i>												
	<b>Overall</b>	<b>BREMS</b>	<b>CSEMS</b>	<b>LFEMS</b>	<b>NVEMS</b>	<b>ODEMSA</b>	<b>PEMS</b>	<b>REMS</b>	<b>SVEMS</b>	<b>TEMS</b>	<b>TJEMS</b>	<b>WVEMS</b>
<b>EMT Paramedic - Paid</b>												
Blank (Count)	98	4	9	4	4	17	9	3	7	13	10	18
Minimum (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Median (Value)	1	1	0	0	29	2	2	0	0	13	0	2
Maximum (Value)	356	54	11	24	356	163	110	19	8	63	13	70
<b>EMT Paramedic - Stipend</b>												
Blank (Count)	115	5	9	5	7	19	13	4	7	14	11	21
Minimum (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Median (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Maximum (Value)	9	0	1	0	0	6	4	6	7	3	0	9
<b>EMT Paramedic - Volunteer</b>												
Blank (Count)	83	2	8	3	6	17	10	3	4	10	6	14
Minimum (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Median (Value)	1	1	1	1	1	3	2	2	1	1	1	1
Maximum (Value)	10	2	2	3	3	6	5	5	2	4	10	3
<b>Active &amp; Certified - Total</b>												
Blank (Count)	47	1	6	4	2	9	5	2	2	7	4	5
Minimum (Value)	2	9	7	11	11	8	7	6	7	7	10	2
Median (Value)	29	21	23	25	60	38	29	33	21	32	21	33
Maximum (Value)	1,704	170	78	89	1,704	530	454	101	206	473	224	249

**Figure 4. EMS Agency Personal Fitness Program by EMS Region**



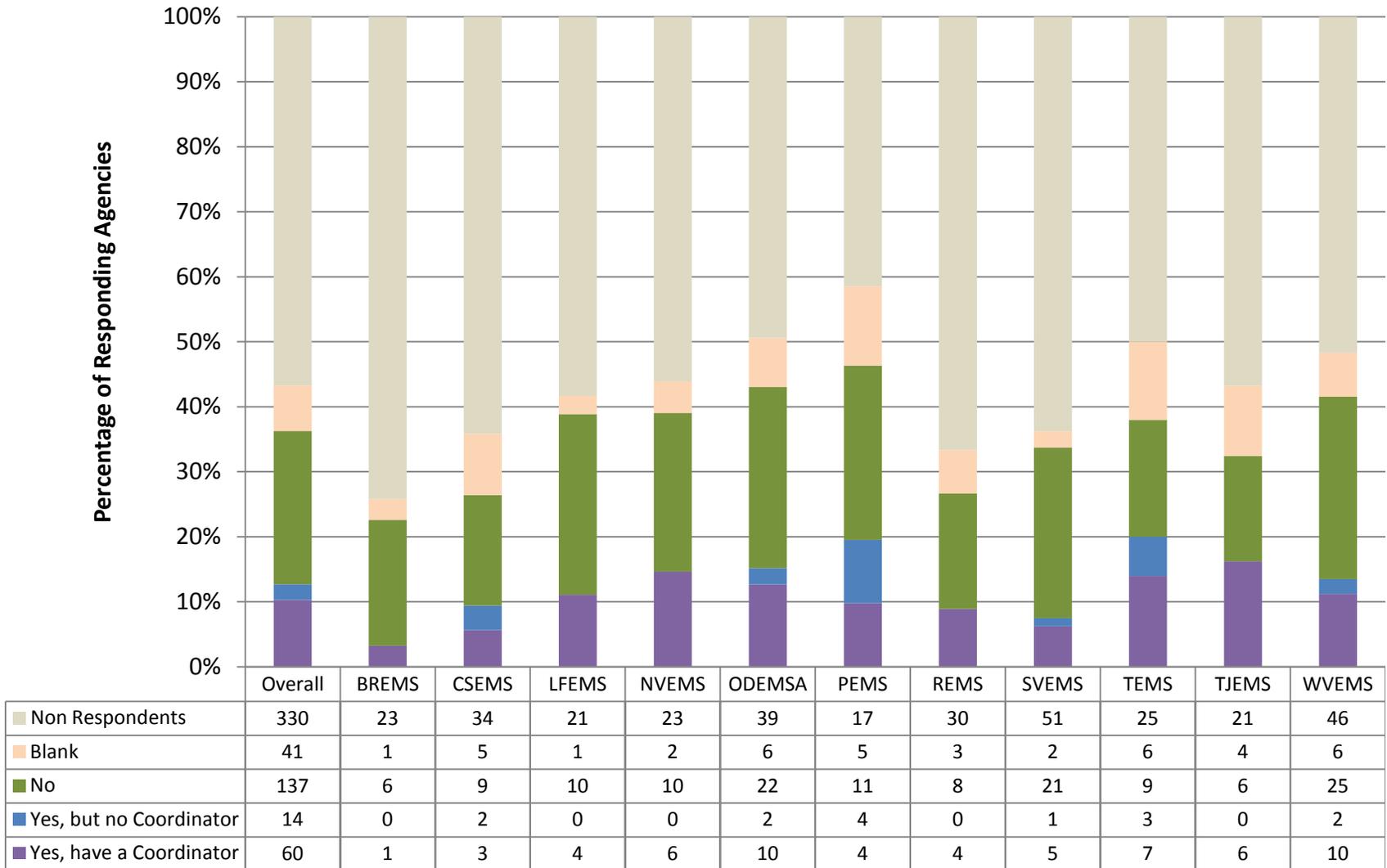
	Overall	BREMS	CSEMS	LFEMS	NVEMS	ODEMSA	PEMS	REMS	SVEMS	TEMS	TJEMS	WVEMS
Non Respondents	330	23	34	21	23	39	17	30	51	25	21	46
Blank	66	3	6	1	3	14	8	5	5	8	4	9
No Program	105	2	9	9	1	14	7	5	16	10	8	24
Other	9	0	1	2	0	1	0	1	1	2	0	1
Equip + Subsidy	60	3	3	3	9	8	9	4	6	5	3	7
Equip + Subsidy + Other	12	0	0	0	5	3	0	0	1	0	1	2

**Figure 5. EMS Agency Recruitment Program/Coordinator by EMS Region**



	Overall	BREMS	CSEMS	LFEMS	NVEMS	ODEMSA	PEMS	REMS	SVEMS	TEMS	TJEMS	WVEMS
Non Respondents	330	23	34	21	23	39	17	30	51	25	21	46
Blank	40	1	5	1	2	6	5	3	2	6	3	6
No	115	4	8	9	4	20	10	6	18	10	5	21
Yes, but no Coordinator	23	1	2	1	3	3	4	1	1	3	0	4
Yes, have a Coordinator	74	2	4	4	9	11	5	5	8	6	8	12

**Figure 6. EMS Agency Retention Program/Coordinator by EMS Region**



Facilities, Vehicles, and Equipment

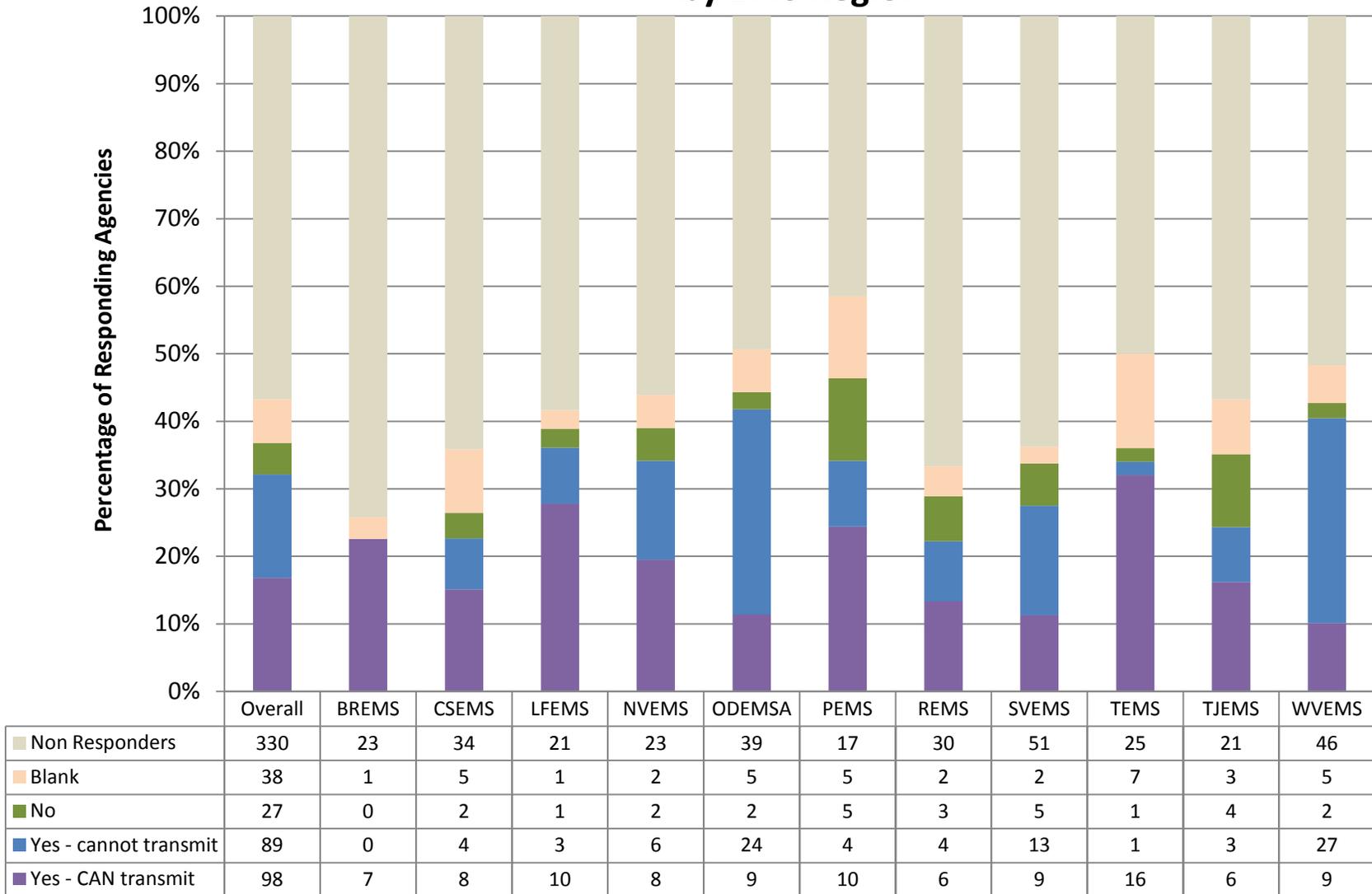
Table 5. Number of Types of Vehicles by EMS Region

	Overall	BREMS	CSEMS	LFEMS	NVEMS	ODEMSA	PEMS	REMS	SVEMS	TEMS	TJEMS	WVEMS
<b>ALS Ground Ambulance</b>												
Blank (Count)	66	1	7	2	4	13	8	4	5	9	7	6
Minimum (Value)	0	1	0	1	0	0	0	0	0	0	0	0
Median (Value)	3	3	3	2	4	4	4	2	3	2	3	3
Maximum (Value)	40	9	6	6	39	30	17	5	5	11	16	40
<b>BLS Ground Ambulance</b>												
Blank (Count)	122	6	10	7	6	21	12	6	12	14	9	19
Minimum (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Median (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Maximum (Value)	10	0	0	0	3	3	10	2	4	0	1	2
<b>Command Support Unit</b>												
Blank (Count)	121	6	11	6	5	21	12	7	14	14	9	16
Minimum (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Median (Value)	0	1	0	0	0	0	0	0	0	0	0	0
Maximum (Value)	5	1	1	1	2	2	1	1	1	1	5	1
<b>Command Vehicle (SUV)</b>												
Blank (Count)	106	4	10	3	3	19	11	7	11	14	7	17
Minimum (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Median (Value)	1	1	0	1	2	0	1	2	1	0	2	1
Maximum (Value)	14	3	3	6	14	12	6	4	1	3	10	10
<b>EMS Bike</b>												
Blank (Count)	123	6	9	7	6	20	11	7	15	14	9	19
Minimum (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Median (Value)	0	3	0	0	0	0	0	0	0	0	0	0
Maximum (Value)	12	6	2	2	6	12	6	2	2	12	0	4
<b>EMS Helicopter</b>												
Blank (Count)	126	6	10	7	5	23	12	7	15	13	9	19
Minimum (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Median (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Maximum (Value)	7	0	0	0	7	0	0	0	0	1	0	3
<b>Heavy Technical Rescue Vehicle</b>												
Blank (Count)	106	5	8	6	6	18	10	7	9	13	6	18
Minimum (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Median (Value)	1	1	1	1	1	1	1	0	1	0	1	0
Maximum (Value)	6	2	1	1	6	4	2	1	2	2	2	2

**Table 5. Number of Types of Vehicles by EMS Region** *(continued)*

	Overall	BREMS	CSEMS	LFEMS	NVEMS	ODEMSA	PEMS	REMS	SVEMS	TEMS	TJEMS	WVEMS
<b>Logistical Support Vehicle</b>												
Blank (Count)	119	6	10	7	6	19	10	7	13	12	9	20
Minimum (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Median (Value)	0	0	0	0	1	0	1	0	0	0	0	0
Maximum (Value)	15	0	1	10	3	15	3	1	1	2	1	1
<b>MCI Trailer</b>												
Blank (Count)	116	6	9	6	6	18	11	7	13	14	9	17
Minimum (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Median (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Maximum (Value)	3	0	1	1	3	1	2	1	1	2	1	2
<b>Other</b>												
Blank (Count)	124	6	11	6	5	22	11	8	13	15	8	19
Minimum (Value)	0	0	0	0	0	0	0	0	0	0	1	0
Median (Value)	0	0	0	0	0	0	1	1	1	1	1	0
Maximum (Value)	14	0	6	6	7	2	14	11	12	10	4	2
<b>Quick Response ALS (Non-Transport) Vehicle</b>												
Blank (Count)	107	6	8	5	5	16	10	6	11	14	8	18
Minimum (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Median (Value)	1	5	1	1	1	1	1	0	0	0	1	0
Maximum (Value)	17	10	6	2	14	7	17	1	7	3	5	6
<b>Quick Response BLS (Non-Transport) Vehicle</b>												
Blank (Count)	91	3	7	6	4	18	7	4	11	11	4	16
Minimum (Value)	0	1	0	0	0	0	0	0	0	0	0	0
Median (Value)	1	1	1	0	0	1	0	1	1	0	1	0
Maximum (Value)	12	2	3	10	4	10	7	3	4	3	8	12
<b>Rescue/EMS Boat</b>												
Blank (Count)	116	5	10	6	6	20	10	7	12	14	8	18
Minimum (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Median (Value)	0	1	0	0	1	0	1	0	1	0	0	0
Maximum (Value)	8	2	1	3	8	7	2	2	2	4	1	3

**Figure 7. Access to 12 Lead ECG/Ability to Transmit Data by EMS Region**



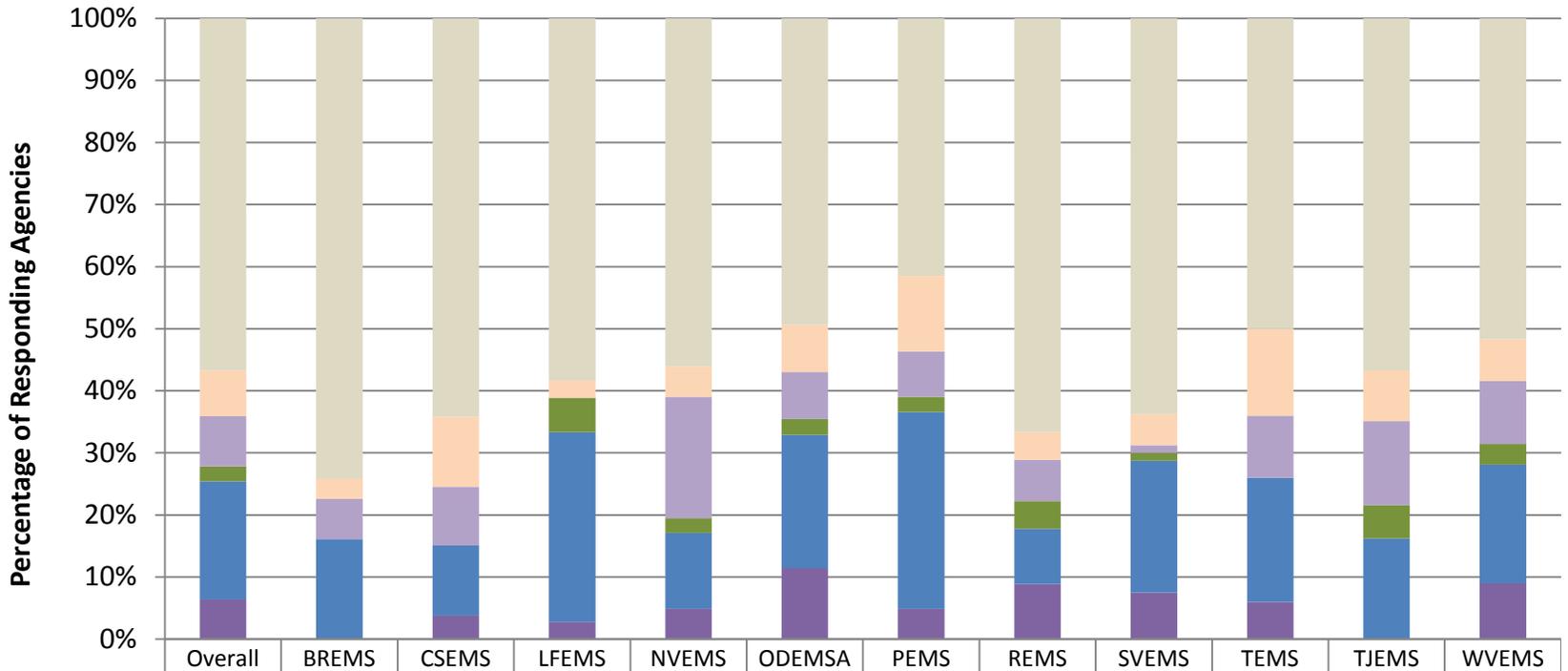
Operating Budget Information

Table 6. Percentages of Types of Funding Sources by EMS Region

	Overall	BREMS	CSEMS	LFEMS	NVEMS	ODEMSA	PEMS	REMS	SVEMS	TEMS	TJEMS	WVEMS
<b>EMS Billing</b>												
Blank (Count)	92	2	8	1	6	18	11	5	7	15	9	10
Minimum (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Median (Value)	15	13	33	0	0	25	9	1	73	25	0	10
Maximum (Value)	100	33	85	60	100	70	62	30	100	100	20	100
<b>Four-for-Life Return to Locality</b>												
Blank (Count)	85	2	7	2	6	14	11	4	5	15	8	11
Minimum (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Median (Value)	2	3	1	2	1	4	2	2	3	0	2	2
Maximum (Value)	62	20	10	10	10	40	50	10	12	10	20	62
<b>RSAF Grant Funding</b>												
Blank (Count)	104	4	10	2	6	18	12	5	9	15	8	15
Minimum (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Median (Value)	0	0	5	0	0	0	0	1	0	1	0	0
Maximum (Value)	50	1	20	10	2	25	30	15	40	24	5	50
<b>Fund Raising/Donations</b>												
Blank (Count)	81	2	6	2	5	15	9	5	4	14	5	14
Minimum (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Median (Value)	10	22	15	40	0	11	10	25	4	5	20	4
Maximum (Value)	100	59	65	84	75	90	85	75	50	100	85	90
<b>Federal Government Funding</b>												
Blank (Count)	118	4	10	3	7	20	13	6	13	17	9	16
Minimum (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Median (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Maximum (Value)	100	0	0	0	100	100	10	100	0	0	0	0

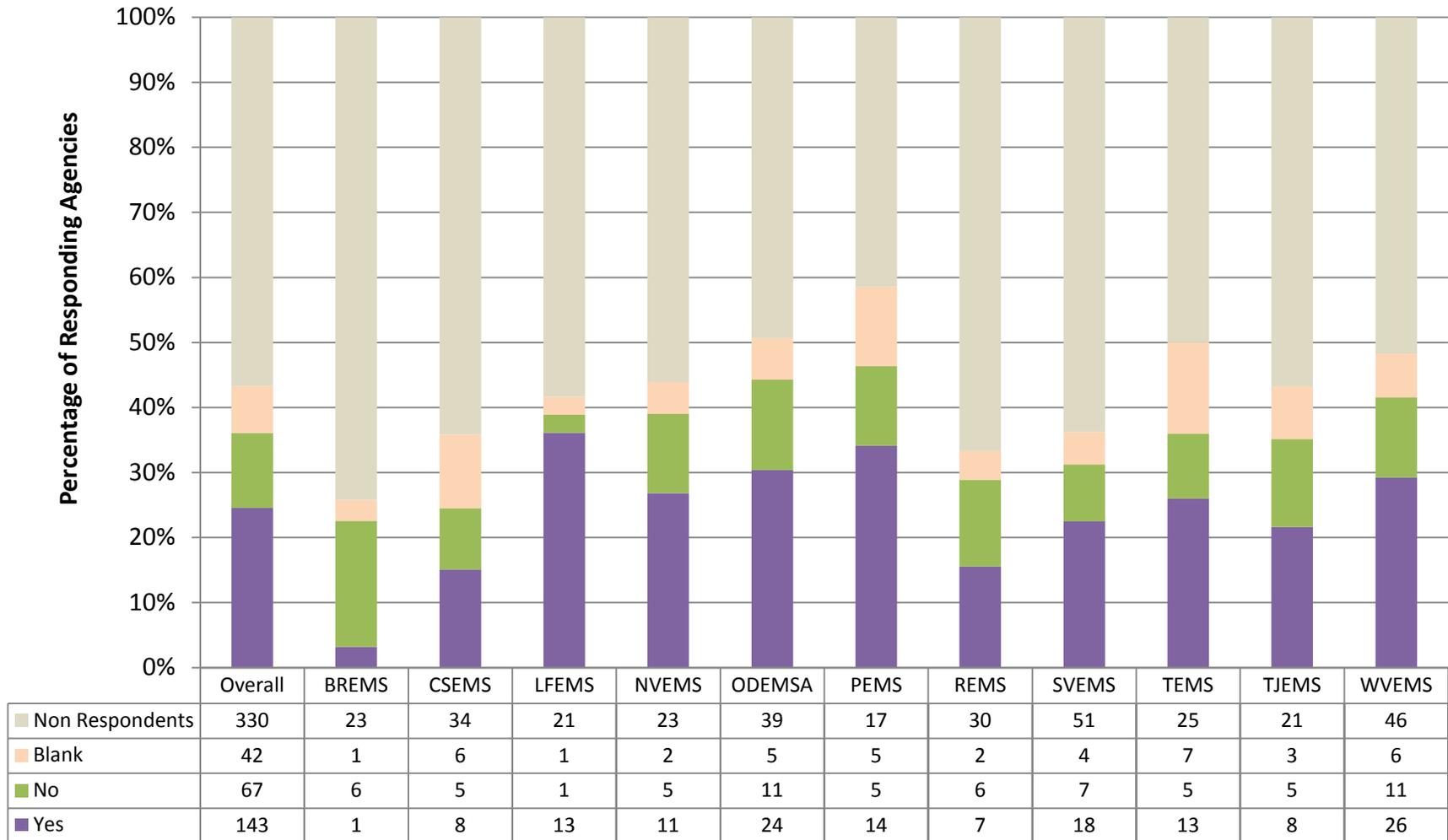


**Figure 8. EMS Agency Participation in the RSAF Grant Program Within the Last 5 Years by EMS Region**



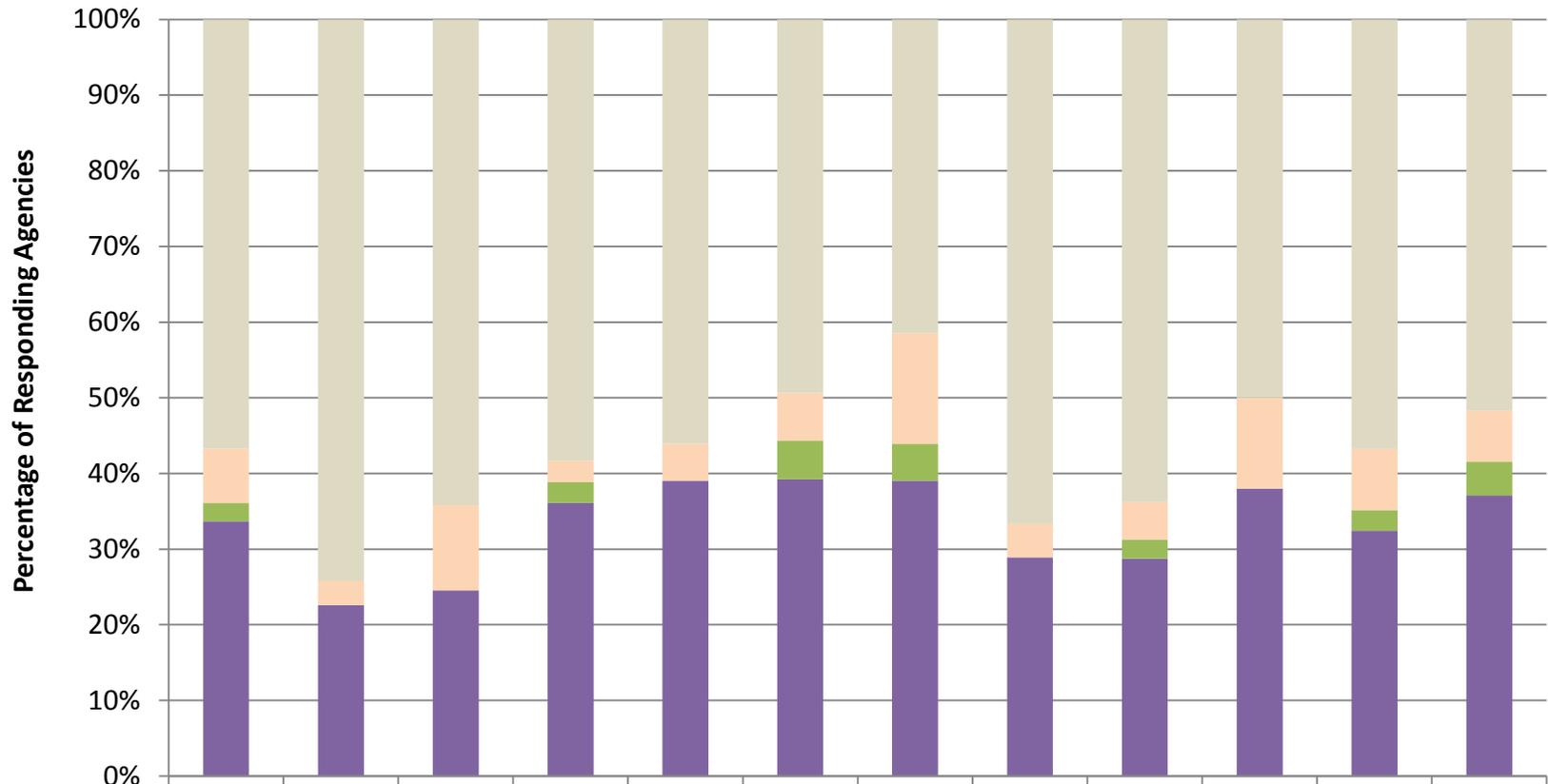
	Overall	BREMS	CSEMS	LFEMS	NVEMS	ODEMSA	PEMS	REMS	SVEMS	TEMS	TJEMS	WVEMS
Non Respondents	330	23	34	21	23	39	17	30	51	25	21	46
Blank	43	1	6	1	2	6	5	2	4	7	3	6
No	47	2	5	0	8	6	3	3	1	5	5	9
No / Lack of Match a Problem	14	0	0	2	1	2	1	2	1	0	2	3
Yes	111	5	6	11	5	17	13	4	17	10	6	17
Yes / Lack of Match a Problem	37	0	2	1	2	9	2	4	6	3	0	8

**Figure 9. EMS Agencies that Actively Seek Non-RSAF Grants by EMS Region**



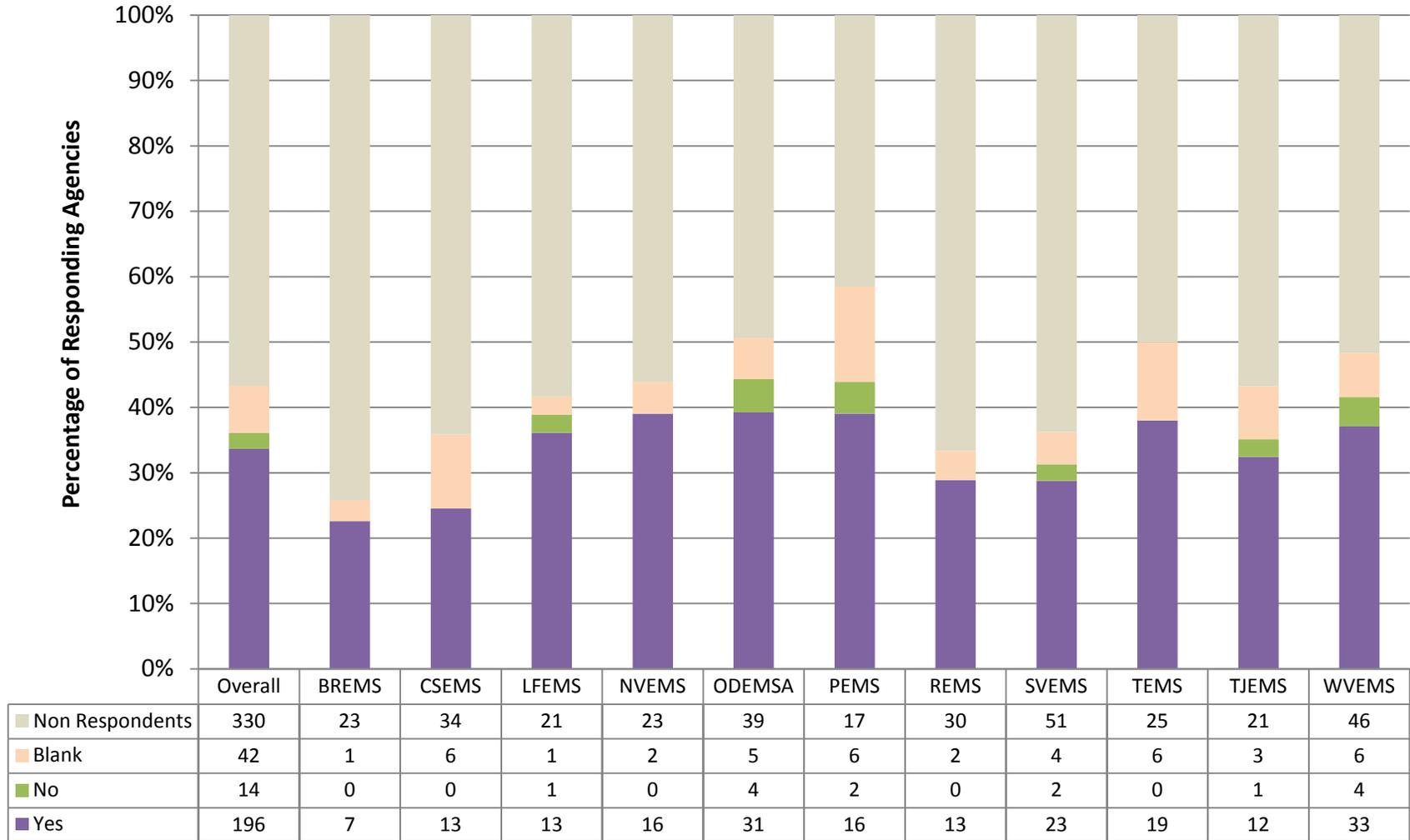
Communications

**Figure 10. Radio Communication with Other EMS Agencies by EMS Region**

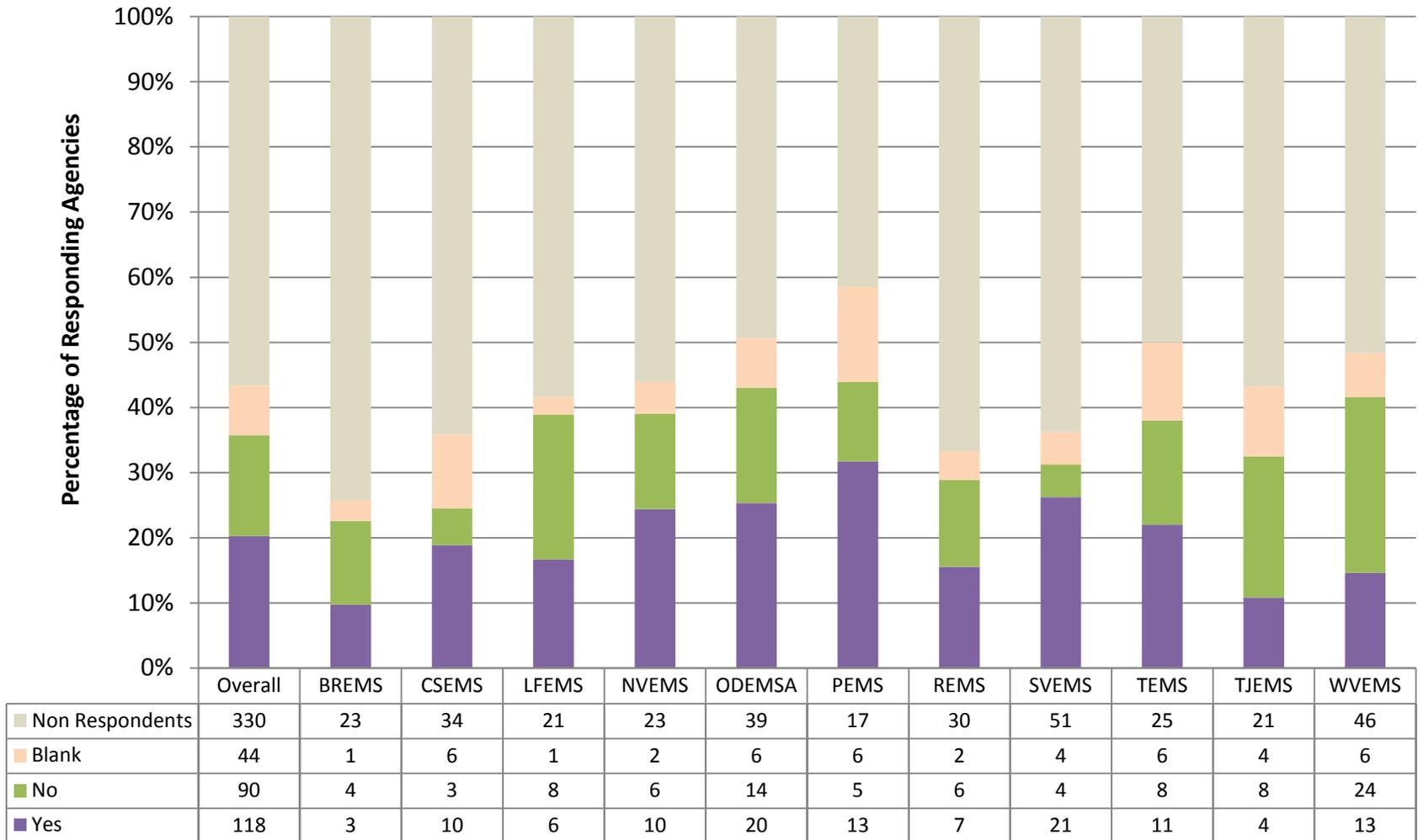


	Overall	BREMS	CSEMS	LFEMS	NVEMS	ODEMSA	PEMS	REMS	SVEMS	TEMS	TJEMS	WVEMS
Non Respondents	330	23	34	21	23	39	17	30	51	25	21	46
Blank	42	1	6	1	2	5	6	2	4	6	3	6
No	14	0	0	1	0	4	2	0	2	0	1	4
Yes	196	7	13	13	16	31	16	13	23	19	12	33

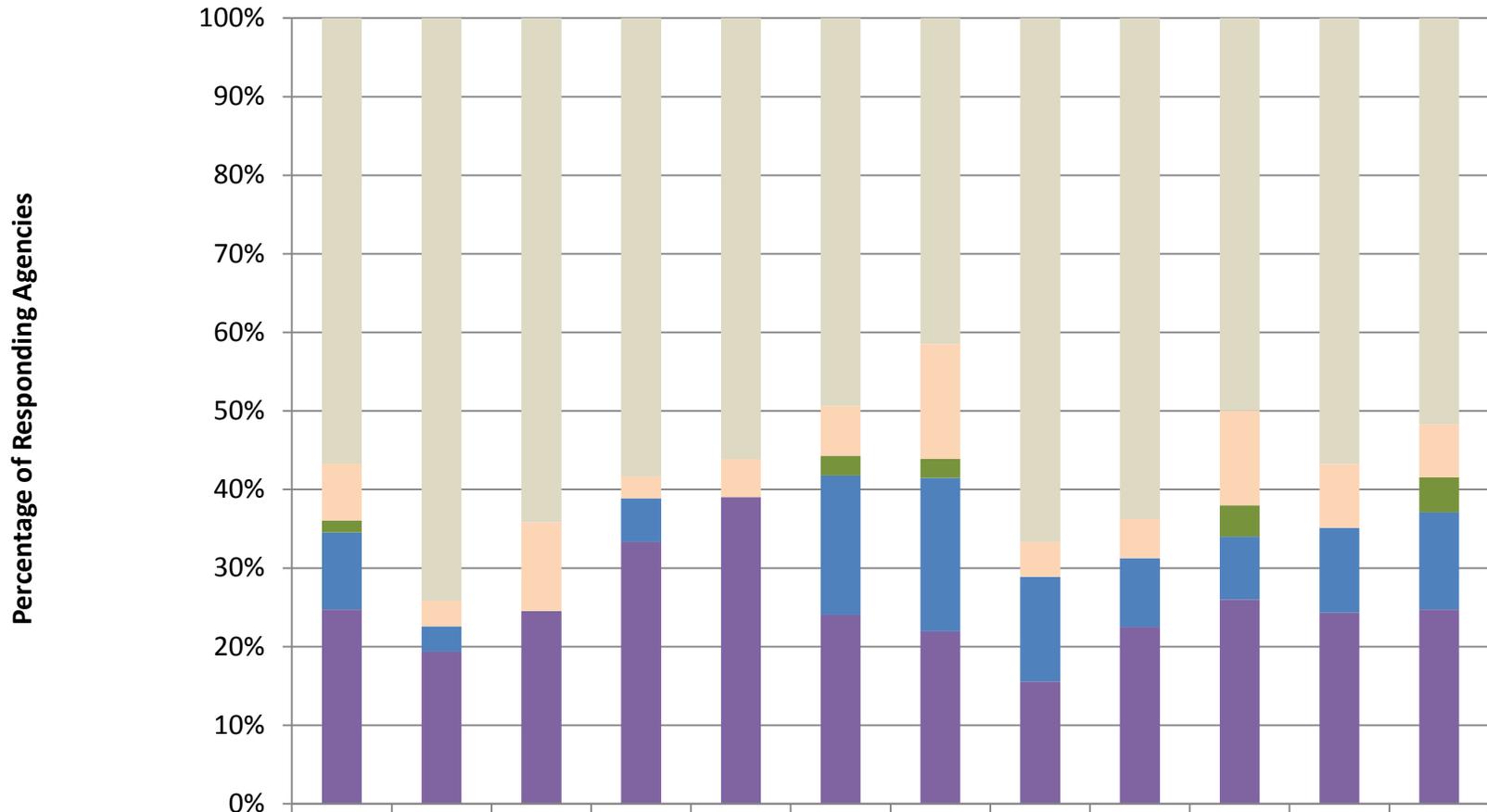
**Figure 11. Radio Communication with Local Hospitals  
by EMS Region**



**Figure 12. Radio Communication with Non-Local Hospitals  
by EMS Region**

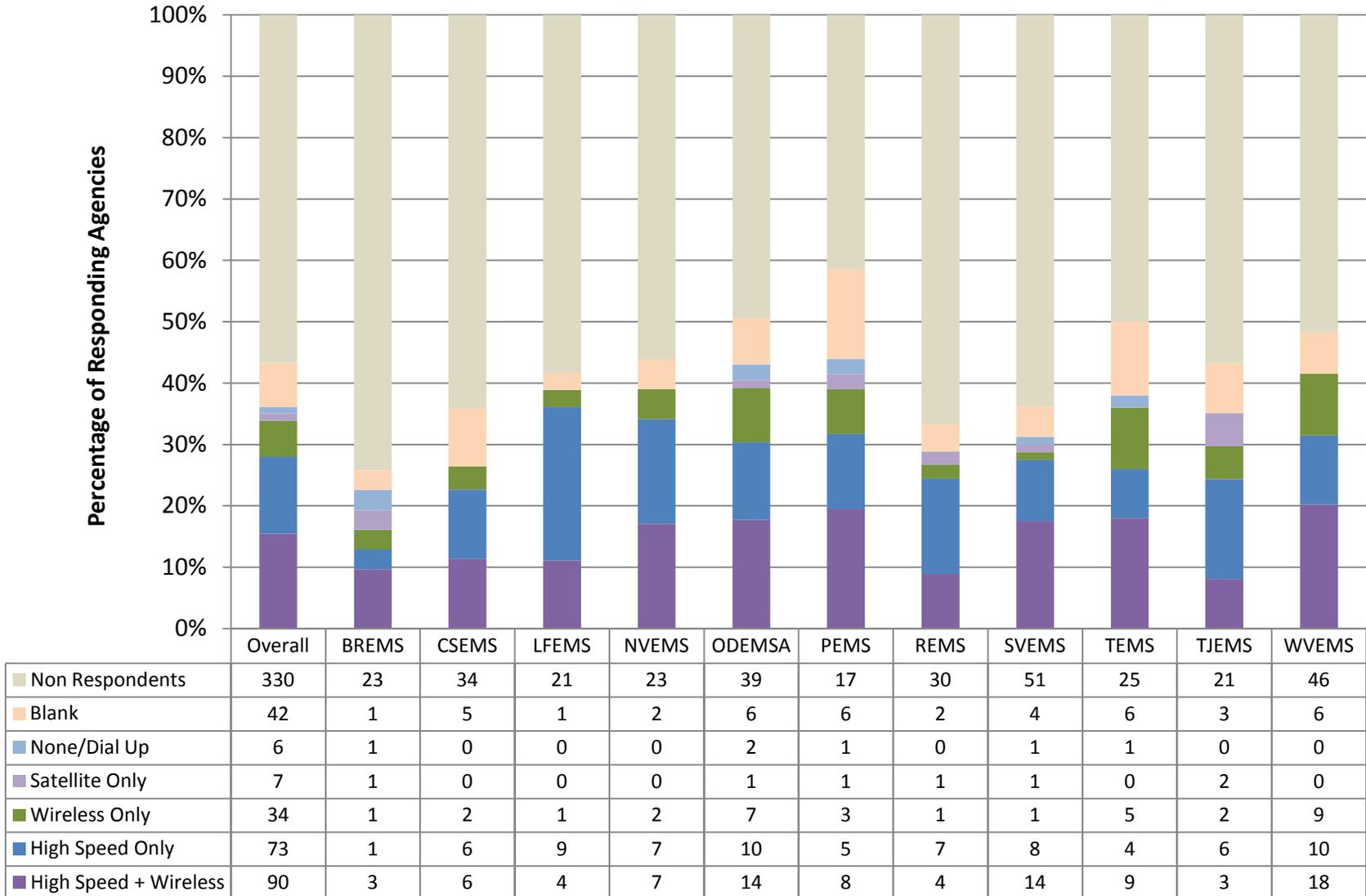


**Figure 13. Source of Dispatch Operations by EMS Region**



	Overall	BREMS	CSEMS	LFEMS	NVEMS	ODEMSA	PEMS	REMS	SVEMS	TEMS	TJEMS	WVEMS
Non Respondents	330	23	34	21	23	39	17	30	51	25	21	46
Blank	42	1	6	1	2	5	6	2	4	6	3	6
All Other	9	0	0	0	0	2	1	0	0	2	0	4
Law Enforcement Dept	57	1	0	2	0	14	8	6	7	4	4	11
911 Center/Communications Dept	144	6	13	12	16	19	9	7	18	13	9	22

Figure 14. Type of Internet Access by EMS Region



EMS Agency Roles/Training

Table 7. Number of Affiliated EMS Agency Personnel by Certification Level and by EMS Region

	Overall	BREMS	CSEMS	LFEMS	NVEMS	ODEMSA	PEMS	REMS	SVEMS	TEMS	TJEMS	WVEMS
<b>EMS First Responder</b>												
Blank (Count)	94	3	7	4	5	17	12	4	8	12	6	16
Minimum (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Median (Value)	0	0	1	0	0	0	0	0	0	0	2	0
Maximum (Value)	54	1	7	7	54	16	0	3	1	3	11	8
<b>EMT Basic</b>												
Blank (Count)	53	1	7	2	3	8	6	3	5	7	4	7
Minimum (Value)	0	4	5	7	0	2	2	4	5	1	6	3
Median (Value)	15	11	23	14	40	15	16	20	9	19	13	15
Maximum (Value)	1,180	69	65	40	1,180	287	156	75	30	302	134	129
<b>EMT Enhanced</b>												
Blank (Count)	77	2	8	3	5	15	10	4	7	9	5	9
Minimum (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Median (Value)	3	5	5	4	0	2	1	1	3	5	3	2
Maximum (Value)	164	19	9	25	4	13	19	13	10	164	20	18
<b>EMT Intermediate</b>												
Blank (Count)	62	1	9	2	3	12	7	3	5	7	7	6
Minimum (Value)	0	0	0	0	0	0	1	0	0	0	1	0
Median (Value)	4	4	3	2	5	4	6	4	2	4	7	4
Maximum (Value)	190	28	15	17	154	50	190	14	30	16	31	61
<b>EMT Paramedic</b>												
Blank (Count)	70	2	10	2	2	12	8	3	5	9	6	11
Minimum (Value)	0	1	0	0	0	0	1	0	0	1	0	0
Median (Value)	4	2	1	3	21	5	6	4	3	7	1	4
Maximum (Value)	366	54	15	24	366	177	110	20	30	107	28	61

<b>Table 8. Number of EMS Agency Personnel Needing Training by Certification Level and by EMS Region</b>												
	<b>Overall</b>	<b>BREMS</b>	<b>CSEMS</b>	<b>LFEMS</b>	<b>NVEMS</b>	<b>ODEMSA</b>	<b>PEMS</b>	<b>REMS</b>	<b>SVEMS</b>	<b>TEMS</b>	<b>TJEMS</b>	<b>WVEMS</b>
<b>EMS First Responder</b>												
Blank (Count)	122	5	10	6	5	21	12	7	11	15	9	21
Minimum (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Median (Value)	0	0	0	0	0	0	0	0	0	0	1	0
Maximum (Value)	47	0	7	47	20	20	15	0	17	0	17	5
<b>EMT Basic</b>												
Blank (Count)	90	3	11	5	5	14	8	5	7	11	9	12
Minimum (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Median (Value)	4	3	13	7	0	5	3	4	3	5	2	5
Maximum (Value)	287	8	65	47	99	287	50	38	20	50	11	72
<b>EMT Enhanced</b>												
Blank (Count)	109	4	12	5	5	19	11	5	9	12	10	17
Minimum (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Median (Value)	0	0	2	4	0	0	0	0	0	1	2	0
Maximum (Value)	164	7	10	15	1	25	4	11	20	164	7	7
<b>EMT Intermediate</b>												
Blank (Count)	99	4	11	3	5	16	9	5	9	13	10	14
Minimum (Value)	0	0	0	1	0	0	0	0	0	0	0	0
Median (Value)	3	0	5	3	0	4	4	1	0	1	3	2
Maximum (Value)	100	12	6	10	10	50	100	20	30	68	100	23
<b>EMT Paramedic</b>												
Blank (Count)	91	3	11	4	3	13	9	5	9	13	10	11
Minimum (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Median (Value)	2	0	2	2	3	1	2	1	2	1	4	2
Maximum (Value)	150	9	39	10	75	150	50	20	36	72	51	74

**Table 9. Rankings for Educational Delivery Methods by EMS Region (sorted by descending rank overall)**

	<b>Overall</b>	<b>BREMS</b>	<b>CSEMS</b>	<b>LFEMS</b>	<b>NVEMS</b>	<b>ODEMSA</b>	<b>PEMS</b>	<b>REMS</b>	<b>SVEMS</b>	<b>TEMS</b>	<b>TJEMS</b>	<b>WVEMS</b>
<i>Highest Possible Score</i>	<i>252.000</i>	<i>8.000</i>	<i>19.000</i>	<i>15.000</i>	<i>18.000</i>	<i>40.000</i>	<i>24.000</i>	<i>15.000</i>	<i>29.000</i>	<i>25.000</i>	<i>16.000</i>	<i>43.000</i>
Hands On	174.226	7.000	11.500	12.500	15.333	28.917	14.833	10.000	21.500	14.500	10.500	27.643
Classroom	101.312	1.700	6.333	6.450	5.500	16.619	10.700	7.750	10.867	11.000	6.226	18.167
Internet/Interactive Video	55.629	2.117	3.102	3.260	5.702	9.210	4.550	2.860	4.693	6.267	3.233	10.636
DVD	49.338	1.583	2.750	3.850	3.967	8.267	4.352	2.533	5.636	4.133	2.950	9.317
CD ROM	42.312	1.010	2.567	3.200	3.036	7.343	3.343	2.660	4.517	3.510	3.076	8.052
Correspondence	37.005	1.529	1.852	2.519	2.543	6.074	2.981	2.033	4.379	3.257	2.176	7.662
Satellite	36.757	1.619	3.043	1.610	2.686	5.800	3.293	2.602	4.460	3.055	2.002	6.588

**Figure 15. Maximum Time Willing to Travel to Educational Events by EMS Region**

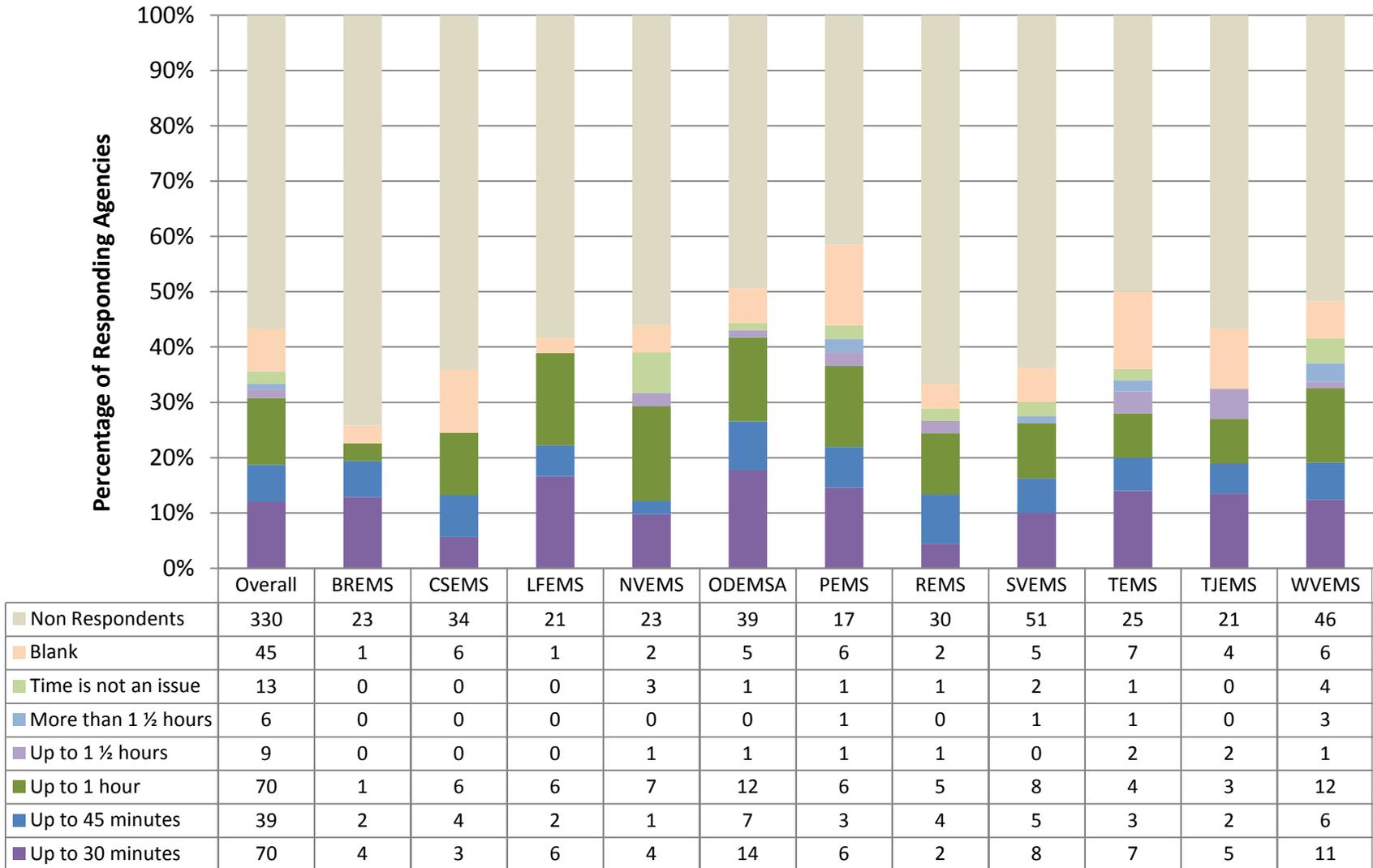


Figure 16. Problems Covering Shifts by EMS Region

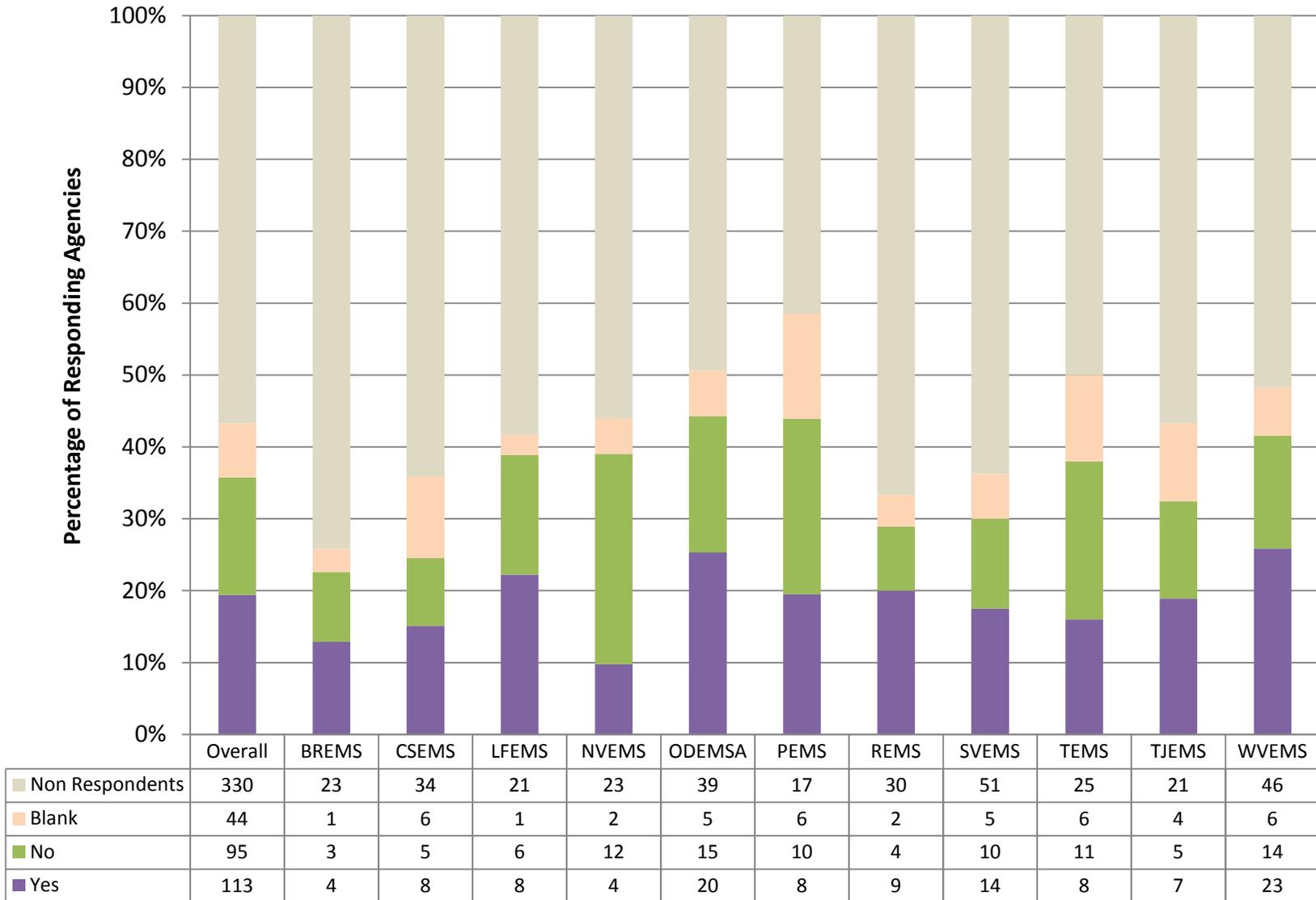
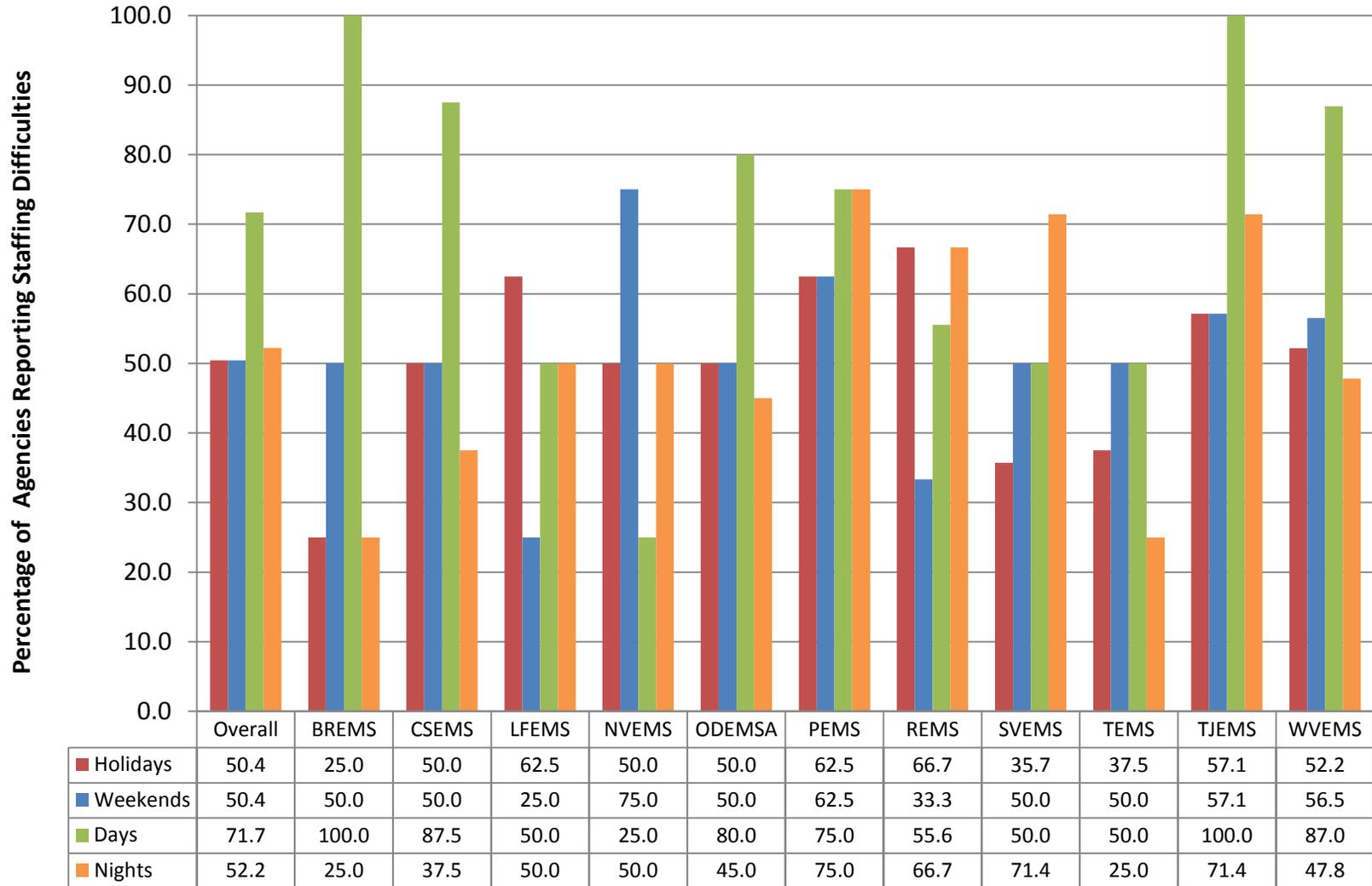
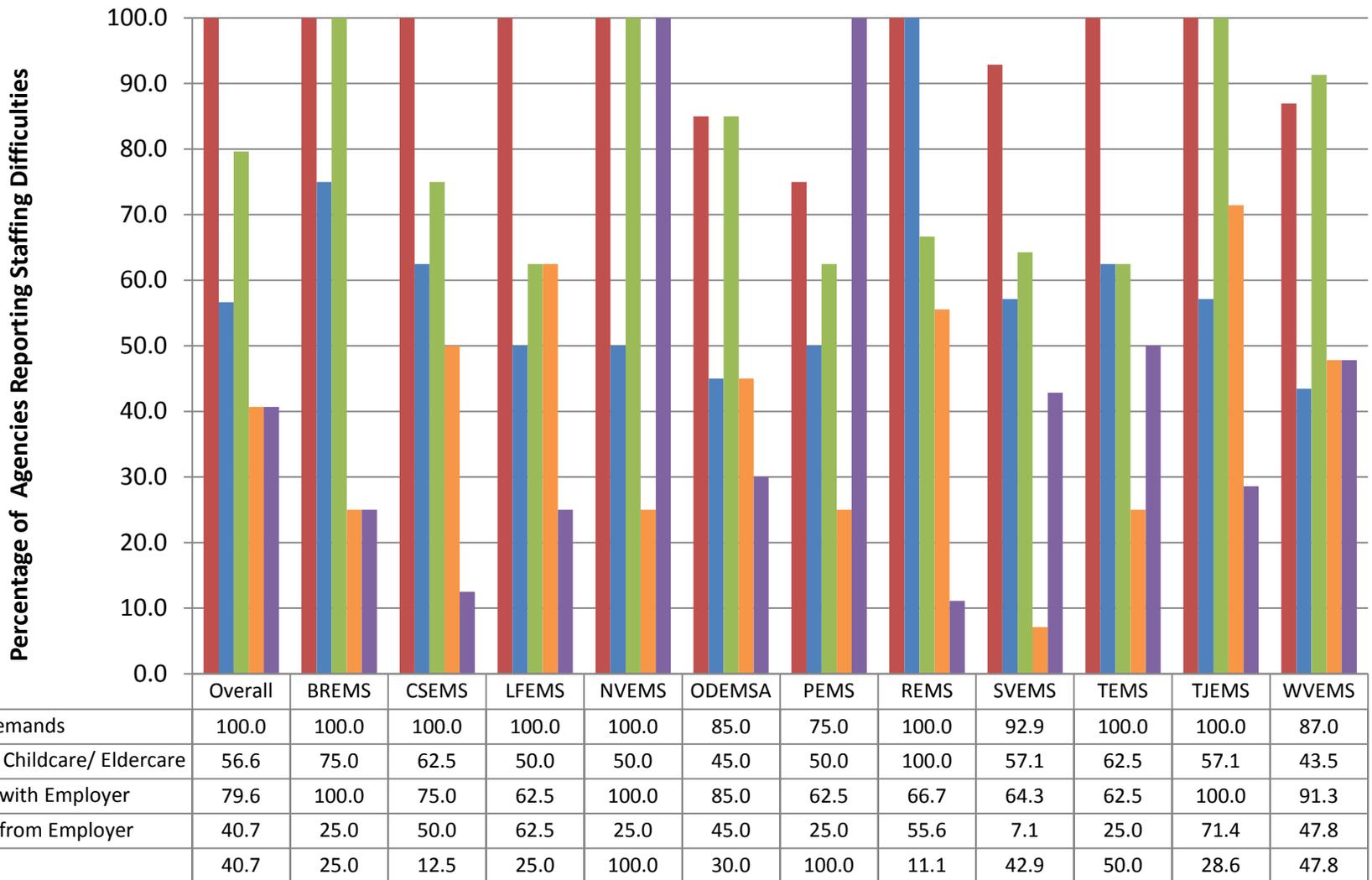


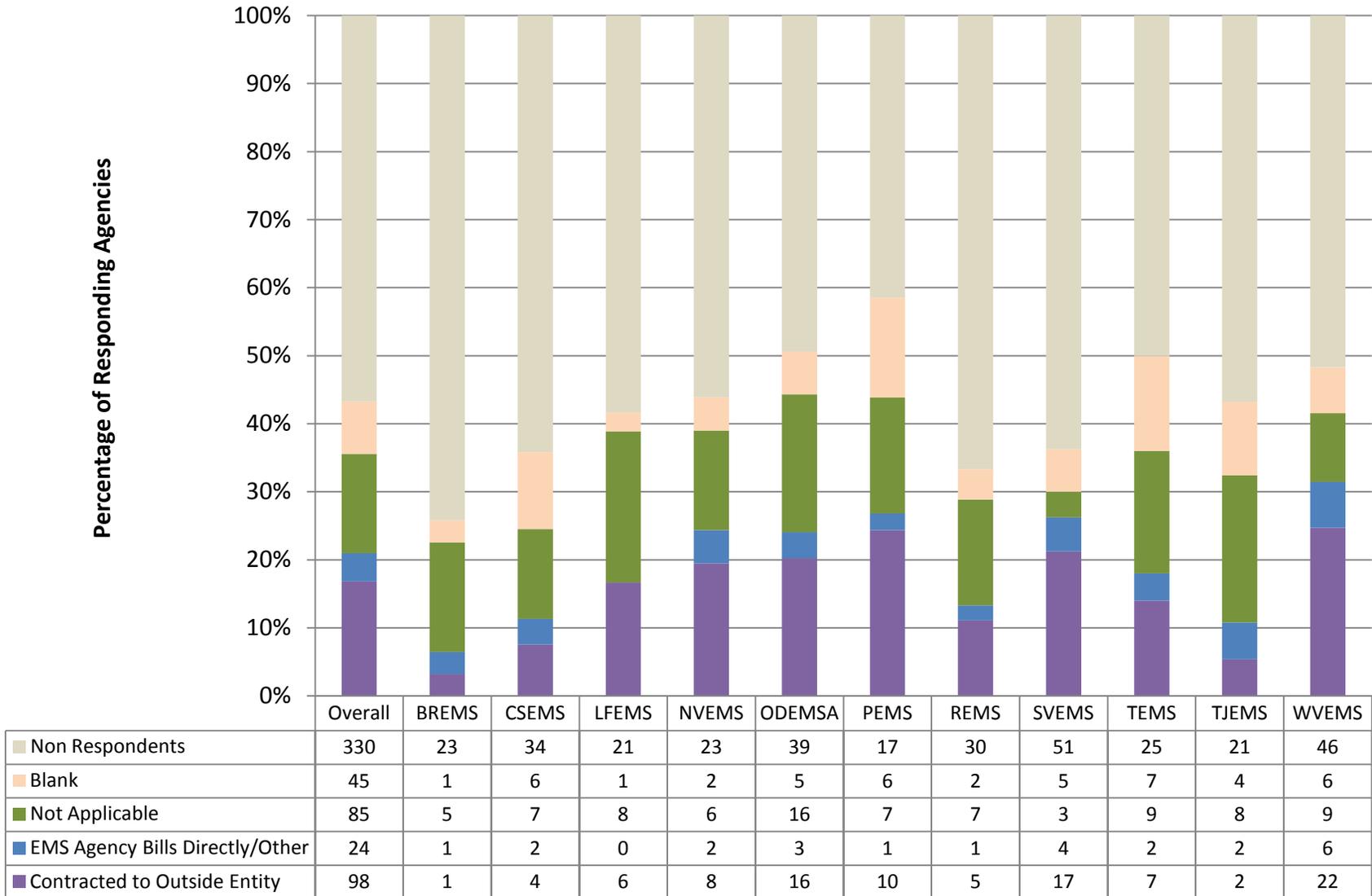
Figure 17. Difficult to Cover Shifts by EMS Region



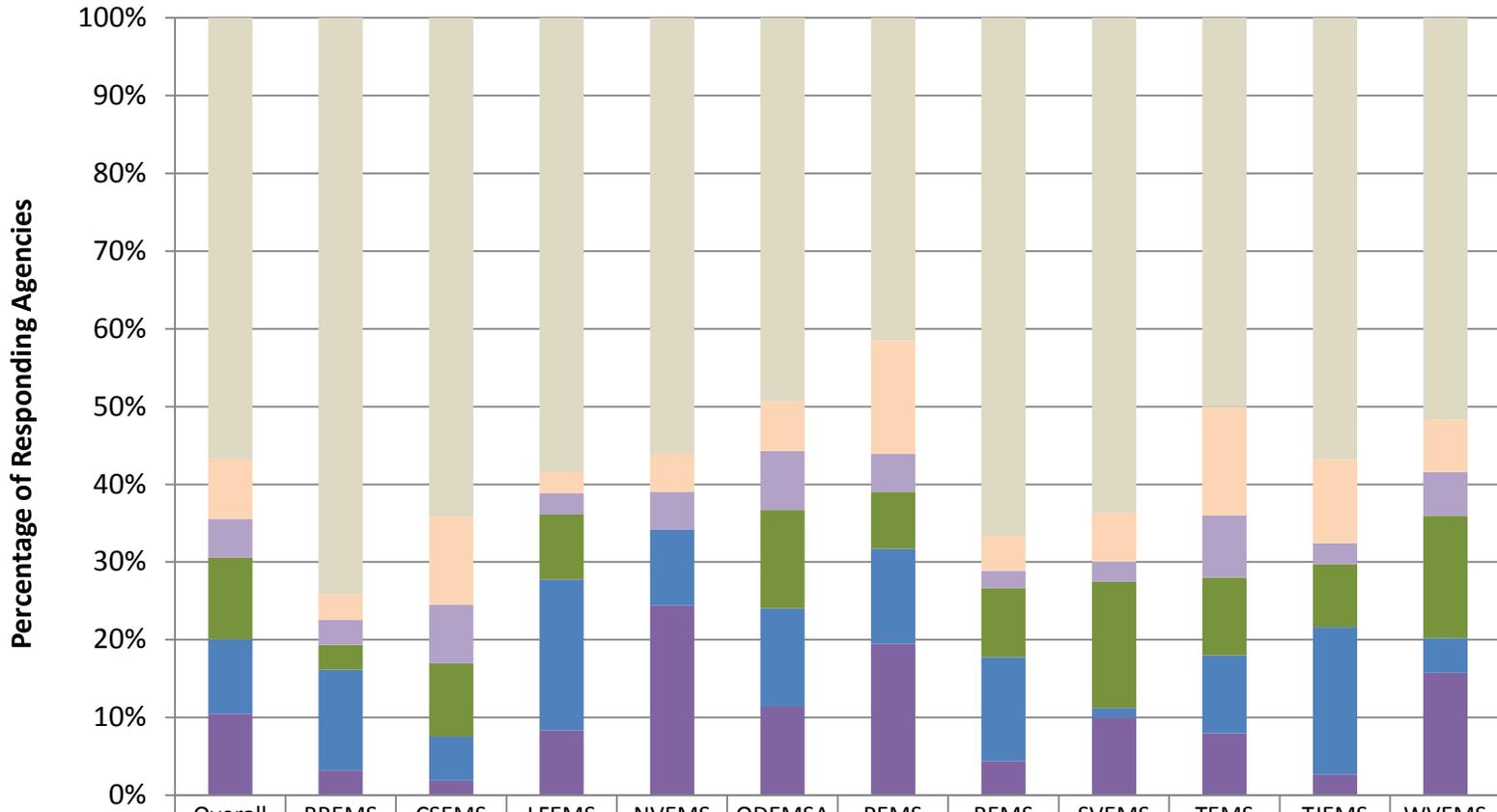
**Figure 18. Reasons for Difficulty Covering Shifts by EMS Region**



**Figure 19. Billing Methods Used by EMS Agencies by EMS Region**

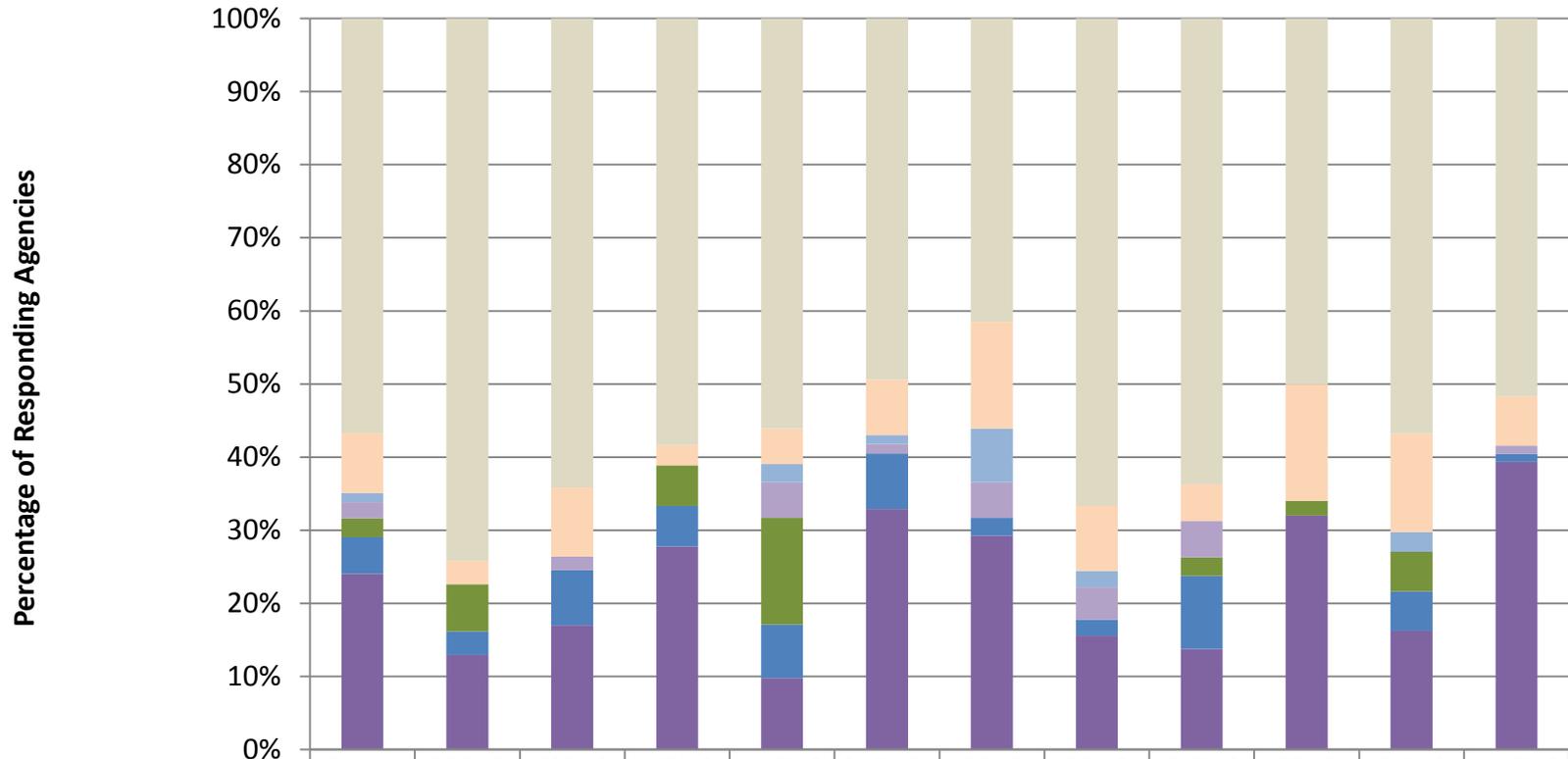


**Figure 20. Sources of Non-Grant Funding by EMS Region**



	Overall	BREMS	CSEMS	LFEMS	NVEMS	ODEMSA	PEMS	REMS	SVEMS	TEMS	TJEMS	WVEMS
Non Respondents	330	23	34	21	23	39	17	30	51	25	21	46
Blank	45	1	6	1	2	5	6	2	5	7	4	6
None	29	1	4	1	2	6	2	1	2	4	1	5
Billing + Fund Raising	61	1	5	3	0	10	3	4	13	5	3	14
Fund Raising	56	4	3	7	4	10	5	6	1	5	7	4
Billing	61	1	1	3	10	9	8	2	8	4	1	14

**Figure 21. Methods Used to Restock Medications by EMS Region**



	Overall	BREMS	CSEMS	LFEMS	NVEMS	ODEMSA	PEMS	REMS	SVEMS	TEMS	TJEMS	WVEMS
Non Respondents	330	23	34	21	23	39	17	30	51	25	21	46
Blank	48	1	5	1	2	6	6	4	4	8	5	6
Not Applicable	7	0	0	0	1	1	3	1	0	0	1	0
Third Party/Other	13	0	1	0	2	1	2	2	4	0	0	1
Other - Hospital/Pharmacy	15	2	0	2	6	0	0	0	2	1	2	0
EMS Agency Stocks/Orders Meds	29	1	4	2	3	6	1	1	8	0	2	1
Regional Restocking Program	140	4	9	10	4	26	12	7	11	16	6	35

**EMS Agency's Top Needs**

<b>Table 10. Rankings for the Top Needs of EMS Agencies by EMS Region (sorted by descending rank overall)</b>												
	<b>Overall</b>	<b>BREMS</b>	<b>CSEMS</b>	<b>LFEMS</b>	<b>NVEMS</b>	<b>ODEMSA</b>	<b>PEMS</b>	<b>REMS</b>	<b>SVEMS</b>	<b>TEMS</b>	<b>TJEMS</b>	<b>WVEMS</b>
<i>Highest Possible Score</i>	252.000	8.000	19.000	15.000	18.000	40.000	24.000	15.000	29.000	25.000	16.000	43.000
Personnel	145.217	5.200	10.000	11.083	10.083	24.933	12.833	10.500	17.200	11.533	8.733	23.117
Training	93.783	3.667	6.583	6.283	9.367	14.567	8.567	4.733	11.850	8.567	4.983	14.617
Vehicles	83.117	1.817	4.617	5.300	5.933	12.450	8.083	5.483	7.783	7.400	4.983	19.267
Equipment	76.900	3.283	4.650	4.983	6.400	13.150	7.950	4.950	8.533	6.017	3.950	13.033
Facilities	67.167	2.017	3.833	4.317	3.467	10.917	5.450	3.567	9.750	6.550	3.750	13.550

<b>Table 11. Types of EMS Agency Personnel Needed by Certification Level, Payment Status, and EMS Region</b>												
	<b>Overall</b>	<b>BREMS</b>	<b>CSEMS</b>	<b>LFEMS</b>	<b>NVEMS</b>	<b>ODEMSA</b>	<b>PEMS</b>	<b>REMS</b>	<b>SVEMS</b>	<b>TEMS</b>	<b>TJEMS</b>	<b>WVEMS</b>
<b>ALS - Paid</b>												
Blank (Count)	142	5	13	8	7	19	15	8	11	15	11	30
Minimum (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Median (Value)	2	0	0	5	5	3	6	0	2	3	0	5
Maximum (Value)	50	2	6	16	45	15	50	12	30	50	10	9
<b>ALS - Volunteer</b>												
Blank (Count)	119	3	12	5	8	19	12	5	11	17	8	19
Minimum (Value)	0	0	0	0	0	0	0	0	0	0	2	0
Median (Value)	5	4	0	5	0	6	3	8	5	4	7	5
Maximum (Value)	50	10	10	10	20	20	50	20	20	50	20	15
<b>BLS - Paid</b>												
Blank (Count)	153	5	13	8	9	22	16	9	12	17	11	31
Minimum (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Median (Value)	0	0	1	5	0	1	0	0	2	0	0	0
Maximum (Value)	45	2	6	24	45	30	6	12	40	10	3	8
<b>BLS - Volunteer</b>												
Blank (Count)	118	4	10	5	7	18	12	5	11	17	6	23
Minimum (Value)	0	0	0	0	0	0	0	0	0	0	0	4
Median (Value)	10	6	10	10	0	10	6	10	6	13	11	10
Maximum (Value)	100	10	65	20	100	24	100	20	10	50	20	25
<b>Support - Paid</b>												
Blank (Count)	162	6	13	10	10	24	17	9	13	17	11	32
Minimum (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Median (Value)	0	0	0	0	0	0	0	0	0	0	0	0
Maximum (Value)	12	0	1	2	10	12	2	2	4	4	5	4
<b>Support - Volunteer</b>												
Blank (Count)	145	4	11	5	8	22	15	7	12	19	10	32
Minimum (Value)	0	0	0	0	0	0	0	0	0	0	1	0
Median (Value)	5	4	3	4	0	4	0	5	5	6	7	5
Maximum (Value)	28	8	20	10	14	24	10	20	12	28	10	10

**Table 12. Rankings for Top 3 EMS Agency Training Needs by EMS Region (sorted by descending rank overall)**

	<b>Overall</b>	<b>BREMS</b>	<b>CSEMS</b>	<b>LFEMS</b>	<b>NVEMS</b>	<b>ODEMSA</b>	<b>PEMS</b>	<b>REMS</b>	<b>SVEMS</b>	<b>TEMS</b>	<b>TJEMS</b>	<b>WVEMS</b>
<i>Highest Possible Score</i>	252.000	8.000	19.000	15.000	18.000	40.000	24.000	15.000	29.000	25.000	16.000	43.000
EMT Basic	126.333	3.333	10.000	6.167	6.667	24.167	10.833	8.500	16.833	10.167	7.167	22.500
EMT Intermediate	74.000	3.500	4.333	6.833	3.667	10.667	8.500	4.500	9.167	4.833	3.500	14.500
EMT Paramedic	73.500	3.000	2.000	3.333	9.333	10.667	7.167	3.667	10.167	9.000	1.000	14.167
EVOC	36.500	0.333	2.167	2.167	3.333	7.833	4.500	2.667	2.500	2.333	2.667	6.000
EMT Enhanced	36.167	2.667	2.500	6.500	0.000	3.167	1.500	3.333	2.500	6.000	3.000	5.000
Vehicle Extraction	18.500	0.000	1.500	0.667	2.500	1.333	2.000	1.167	2.667	0.833	2.333	3.500
First Responder	10.000	0.000	1.333	0.000	2.000	2.333	0.000	0.000	0.333	1.667	2.000	0.333

**Table 13. Rankings for Top 5 EMS Agency Concerns by EMS Region (sorted by descending rank overall)**

	<b>Overall</b>	<b>BREMS</b>	<b>CSEMS</b>	<b>LFEMS</b>	<b>NVEMS</b>	<b>ODEMSA</b>	<b>PEMS</b>	<b>REMS</b>	<b>SVEMS</b>	<b>TEMS</b>	<b>TJEMS</b>	<b>WVEMS</b>
<i>Highest Possible Score</i>	252.000	8.000	19.000	15.000	18.000	40.000	24.000	15.000	29.000	25.000	16.000	43.000
Training Personnel	125.317	5.500	8.167	8.583	8.333	18.100	11.617	7.750	19.033	8.533	7.950	21.750
Recruitment/Retention	102.000	3.500	6.700	7.167	7.250	16.367	8.233	8.083	11.283	9.400	7.333	16.683
CE for EMS Personnel	52.350	0.950	4.150	3.117	4.617	8.350	6.233	2.433	5.300	7.033	1.867	8.300
Medical Equipment Needs	36.200	0.667	0.983	3.233	2.733	6.583	4.317	2.650	3.633	2.067	1.617	7.717
Quality Assessment/ Performance Improvement	30.850	1.417	1.833	1.983	4.433	4.733	2.783	0.983	3.450	3.217	1.500	4.517
Training Equipment	30.583	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Computers/Software	29.317	0.250	1.367	3.100	1.550	6.167	1.983	2.450	2.350	3.983	0.933	5.183
Radio Communications Equipment	21.950	0.583	1.583	1.000	0.000	2.633	1.700	1.250	3.033	1.667	2.367	6.133
Medical Supplies (consumable)	16.967	0.400	2.517	0.450	1.817	3.200	1.233	1.200	1.567	0.917	0.900	2.767
Relations with Hospitals	9.883	0.700	0.000	1.650	0.783	1.433	0.450	0.200	1.617	1.200	0.533	1.317
Hazmat Response Equipment	7.950	0.583	1.583	1.000	0.000	2.633	1.700	1.250	3.033	1.667	2.367	6.133

**Virginia Department of Health  
Office of Emergency Medical Services (OEMS)**

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This initial survey will provide statistical information to the OEMS, regional EMS Councils, state EMS Advisory Board and the Legislative and Planning Committee regarding the overall needs of Virginia's EMS agencies. The plan is to revise, update and repeat this survey in subsequent years to gather important information to identify needed resources, equipment, training and system priorities. This information will be used to plan and manage programs and services administered by the Virginia Office of EMS and the eleven (11) designated regional EMS Councils as well as assure current EMS funding is continued and possibly increased to assist EMS agencies and localities throughout Virginia. All survey data will be compiled and the results will be reported during the spring of 2013 as the Inaugural Virginia EMS Needs Assessment.

Each EMS agency in Virginia is requested to complete this on-line survey. Multiple responses from a single EMS agency will not be accepted. Responses to the survey should be submitted by the Chief Executive Officer (CEO) or his designee. If multiple responses from the same agency are received, only the first submission will be accepted.

The estimated time needed to complete the entire survey is approximately 25 minutes. Prior to beginning the survey you should review your agency records for basic information related to number of calls, number of certified EMS personnel, number and type of permitted vehicles, etc. The time period covered by this survey is calendar year (CY) 2011 which includes January 1, 2011 to December 31, 2011.

Also, anytime during the completion of this survey, you can exit and close, if needed, and then return later to finish submitting your response. (Clicking "Next" at the bottom of each page will save your answers.)

To review and download the survey questions before completing the survey on-line, please click on the following link: [Download 2012 Survey Questions Here](#).

If you have any questions regarding the EMS Needs Assessment survey, please contact:

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If you need technical assistance regarding the EMS Needs Assessment survey, please contact:

Tracy Mason  
Information Technology Programmer/Webmaster  
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**\* 1. EMS Agency Name:**

**2. Complete the following contact information for the person completing the survey:**

**Name:**

**Title:**

**Email Address:**

**Phone Number:**

**Section I – General EMS Agency Information**

**3. If your EMS agency has a website, please enter the address.**

**4. Please select from the following list to indicate the status of your EMS agency.**

- Career
- Volunteer
- Combination
- Other (please specify)

**5. Is the area that your EMS agency has primary responsibility to serve (exclude mutual aid areas) urban, suburban, rural? (Check all that apply.)**

- Urban
- Suburban
- Rural

**6. What is the number of permanent residents that your EMS agency has primary responsibility to serve?**

- 0 – 999
- 1,000 – 2,499
- 2,500 – 4,999
- 5,000 – 9,999
- 10,000 – 24,999
- 25,000 – 49,999
- 50,000 – 99,999
- 100,000 Or More

**7. What is the number of square miles that your EMS agency has primary responsibility to serve?**

- 0 – 24
- 25 – 49
- 50 – 74
- 75 – 99
- 100 – 199
- 200 – 299
- 300 Or More

**8. Please indicate your EMS agency's activity for Calendar Year (CY) 2011. (January 1, 2011 – December 31, 2011)**

**\* Your answer must be a whole number. Do not include percent signs, commas, or decimals.**

How many EMS calls did your agency respond to in CY 2011?

What percentage of EMS calls dispatched to your agency during CY 2011 were to areas outside of your primary response area?

What percentage of EMS calls dispatched to your agency during CY2011 were unable to be answered and had to be answered by another Fire/EMS agency?

**Section II – EMS Agency Personnel**

Please indicate the total number of certified and active EMS personnel by status in your EMS agency (questions 9 - 13). The total number, question 14, should be the total number of certified and active EMS personnel in your EMS agency.

\* Your answer must be a whole number. Do not include commas or decimals.

**9. First Responders:**

Paid Career	<input type="text"/>
Unpaid Volunteers	<input type="text"/>
Paid Volunteers (Paid-Per-Call/Stipend)	<input type="text"/>

**10. EMT-Basics:**

Paid Career	<input type="text"/>
Unpaid Volunteers	<input type="text"/>
Paid Volunteers (Paid-Per-Call/Stipend)	<input type="text"/>

**11. EMT-Enhanced:**

Paid Career	<input type="text"/>
Unpaid Volunteers	<input type="text"/>
Paid Volunteers (Paid-Per-Call/Stipend)	<input type="text"/>

**12. EMT-Intermediates:**

Paid Career	<input type="text"/>
Unpaid Volunteers	<input type="text"/>
Paid Volunteers (Paid-Per-Call/Stipend)	<input type="text"/>

**13. EMT-Paramedics:**

Paid Career	<input type="text"/>
Unpaid Volunteers	<input type="text"/>
Paid Volunteers (Paid-Per-Call/Stipend)	<input type="text"/>

**14. Total number of certified and active EMS personnel:**

Total	<input type="text"/>
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**15. Does your EMS agency have a program to maintain basic EMS personnel fitness and health?**

- Yes
- No

**16. What type of fitness program does your EMS agency provide? (check all that apply)**

- EMS agency has no program
- Exercise equipment in station/crew hall
- Agency subsidized health club membership
- Other, please specify

**17. Does your EMS agency currently have the following personnel programs?**

Does your EMS agency have a Recruitment Program?

If "Yes", do you have an Individual assigned to coordinate the program?

Does your EMS agency have a Retention Program?

If "Yes", do you have an Individual assigned to coordinate the program?

**Section III – Facilities, Vehicles and Equipment**

**18. Please indicate the total number of each type of vehicle that your EMS agency owns. (Complete all that apply.)**

**\* Your answer must be a whole number. Do not include commas or decimals.**

Basic Life Support Ground Transport Ambulance	<input type="text"/>
Advanced Life Support Ground Transport Ambulance	<input type="text"/>
EMS Helicopter	<input type="text"/>
Command Support Unit	<input type="text"/>
Command Vehicle (SUV)	<input type="text"/>
EMS Bike (Bicycle for Response)	<input type="text"/>
Rescue/EMS Boat	<input type="text"/>
Heavy Technical Rescue Vehicle	<input type="text"/>
Logistical Support Vehicle	<input type="text"/>
Quick Response Basic Life Support (Non-Transport) Vehicle	<input type="text"/>
Quick Response Advanced Life Support (Non-Transport) Vehicle	<input type="text"/>
MCI Traller	<input type="text"/>
Other	<input type="text"/>

**19. Does your EMS agency have 12-lead ECG capabilities?**

- Yes
- No (Skip to question 21)

**20. If Yes, Does your EMS agency have the ability to transmit 12-lead ECG's to a receiving hospital?**

- Yes
- No

**Section IV – Operating Budget Information**

**21. What percentage (%) of your CY2011 budget is from the following sources? (The total at the bottom should add to 100.)**

**\* Your answer must be a whole number. Do not include percent signs, commas, or decimals.**

Four-For-Life Return to Locality (RTL)	<input type="text"/>
RSAF Grant Funding	<input type="text"/>
EMS Billing	<input type="text"/>
Federal Government Funding	<input type="text"/>
Local Government	<input type="text"/>
Fund Raising/Donations	<input type="text"/>
Other state Government Funding	<input type="text"/>
Other	<input type="text"/>
Total (Should equal 100)	<input type="text"/>

**22. Has your EMS agency applied for an Rescue Squad Assistance Fund (RSAF) grant within the last five (5) years?**

- Yes
- No

**23. Most grant awards require a match from the EMS agency. Has the lack of a match ever prevented your EMS agency from applying for or accepting an RSAF grant?**

- Yes
- No

**24. Excluding RSAF, does your EMS agency actively seek out and apply for other grant assistance (local/state/federal)?**

- Yes
- No

**Section V – Communications**

**25. Can you communicate by radio with neighboring/adjoining EMS agencies that you regularly respond with to an incident scene?**

Yes

No

**26. Can your EMS agency communicate by radio with local hospitals that routinely receive patients transported by your agency?**

Yes

No

**27. Can your EMS agency communicate by radio with non-local hospitals that receive patients transported by your agency?**

Yes

No

**28. Who has primary responsibility for dispatch operations?**

EMS Agency – Self Dispatch

Law Enforcement Department (Police, Sheriff)

911 Center/Communications Department

Other, please specify

**29. What type of internet access does your EMS agency have? (Check all that apply.)**

Dial-up Internet

High Speed Internet (DSL)

Satellite Internet

Wireless Internet

No Internet Service

**Section VI –EMS Agency Roles / Training**

Please answer the following questions about your EMS agency's EMS training.

**30. How many active members/employees are trained in the following EMS certification levels?**

**\* Your answer must be a whole number. Do not include commas or decimals.**

EMS First Responder	<input type="text"/>
EMT-Basic	<input type="text"/>
EMT-Enhanced	<input type="text"/>
EMT-Intermediate	<input type="text"/>
EMT-Paramedic	<input type="text"/>

**31. How many of your members/employees need training at this level?**

**\* Your answer must be a whole number. Do not include commas or decimals.**

EMS First Responder	<input type="text"/>
EMT-Basic	<input type="text"/>
EMT-Enhanced	<input type="text"/>
EMT-Intermediate	<input type="text"/>
EMT-Paramedic	<input type="text"/>

**32. Please rank your order of preference for types of EMS educational opportunities:**

	Most Preferred 1	2	3	4	5	6	Least Preferred 7
Hands on Skills Practice	<input type="radio"/>						
Classroom	<input type="radio"/>						
CD-ROM	<input type="radio"/>						
DVD	<input type="radio"/>						
Satellite	<input type="radio"/>						
Internet/Interactive Video	<input type="radio"/>						
Correspondence	<input type="radio"/>						

**33. How much time are members/employees of your EMS agency willing to travel one-way to obtain EMS education/continuing education and training?**

- Up to 30 minutes
- Up to 45 minutes
- Up to 1 hour
- Up to 1 ½ hours
- More than 1 ½ hours
- Time is not an issue

**34. Does your EMS agency have difficulty covering shifts?**

- Yes
- No (Skip to Question 36)

**35. If "Yes", when do these difficulties occur? Check all that apply.**

- Nights
- Days
- Weekends
- Holidays

**36. What are the reasons members of your EMS agency are unable to cover all shifts?**

- Family Demands
- Daycare/Childcare/Eldercare
- Conflicts with Employer
- Distance from Employer
- Other, please specify

**37. Does the patient receive a bill for services rendered by your EMS agency?**

- Yes
- No (Skip to Question 39)

**38. If "Yes", how does your EMS agency conduct billing activities? (Select all that apply.)**

- EMS agency bills direct
- Billing contracted to outside entity
- Other, please specify

**39. Does your EMS agency conduct public fund raising campaigns to cover the cost of operational expenses and/or special projects?**

- Yes
- No

**40. How does your EMS agency restock medications used from your medication kits/drug boxes?**

- EMS agency orders and stocks medications
- Regional restocking program
- 3rd party
- Other, please specify

**Section VII - Your EMS Agency's Top Needs**

**41. Please rank your EMS agency's top needs from 1 to 5 for CY2012 (January 1, 2012 – December 31, 2012)**

	Most Important 1	2	3	4	Least Important 5
Vehicles	<input type="radio"/>				
Equipment	<input type="radio"/>				
Facilities	<input type="radio"/>				
Personnel	<input type="radio"/>				
Training	<input type="radio"/>				

**42. In order to meet your EMS agency minimum staffing requirements in the next two (2) years, please indicate the specific type of personnel that your EMS agency needs by indicating the quantity needed. Do not report current personnel already budgeted for CY2012. (Complete all that apply.) If no personnel is currently needed skip to question 41. Your answer must be a whole number.**

BLS – Paid	<input type="text"/>
BLS – Volunteer	<input type="text"/>
ALS – Paid	<input type="text"/>
ALS – Volunteer	<input type="text"/>
Support Personnel – Paid	<input type="text"/>
Support Personnel – Volunteer	<input type="text"/>

**43. Please select the top 3 priority types of training that your EMS agency needs for CY2013 (January 1, 2013 to December 31, 2013) from the following training areas and levels.**

	1	2	3
EMS First Responder/Emergency Medical Responder	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
EMT-Basic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
EMT-Enhanced	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
EMT-Intermediate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
EMT-Paramedic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Emergency Vehicle Operators Course (EVOC)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vehicle Extrication	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**44. From the list below, please rank your EMS agency's top 5 EMS concerns.**

	1	2	3	4	5
Training and upgrading EMS personnel	<input type="radio"/>				
Medical supply needs (such as dressings, medications, etc.)	<input type="radio"/>				
Training equipment needs (manikins, KEDs, Long Spine Boards, etc.)	<input type="radio"/>				
Recruitment and Retention of EMS personnel	<input type="radio"/>				
Relations with Hospitals	<input type="radio"/>				
Continuing Education for EMS personnel	<input type="radio"/>				
Quality Assurance/Performance Improvement	<input type="radio"/>				
Radio Communications Equipment	<input type="radio"/>				
Equipment for Hazardous Materials, Bioterrorism, Weapons of Mass Destruction Response	<input type="radio"/>				
Medical Equipment needs (Non-disposable)	<input type="radio"/>				
Computers/Software	<input type="radio"/>				

**45. Do you feel that this survey addresses all of your EMS agency's needs?**

- Yes
- No

Comments:

**46. Do you think this survey is beneficial to the Emergency Medical Services System in Virginia?**

- Yes
- No

Comments:

Please rate if you disagree/agree with the following statements on the overall performance of this survey.

**47. Easy to Understand Questions**

- Agree
- Disagree
- Neutral

**48. Simple to Complete Response On-Line**

- Agree
- Disagree
- Neutral