

The Demand for EMS Personnel in South Carolina



December, 2018

South Carolina EMS Association

South Carolina Office for Healthcare Workforce

Acknowledgements

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This report was prepared by Linda M. Lacey in the South Carolina Office for Healthcare Workforce. Our office is dedicated to studying supply and demand issues affecting a wide variety of healthcare professions and occupations in the state. Our primary mission is the development and analysis of accurate, reliable data on the supply of healthcare professionals and the demand for those professionals by employers throughout the state in order to support effective workforce planning efforts.

For questions, more information or additional copies of this report, please contact Ms. Lacey at LaceyL@musc.edu. Or visit our website at: www.SCOHW.org.



The South Carolina Office for Healthcare Workforce is a part of the South Carolina Area Health Education Consortium (AHEC) program office, located in Charleston, SC.

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Study methods

This study was conducted as part of a collaboration between the South Carolina Office for Healthcare Workforce and the South Carolina EMS Association. It was designed to investigate how well the need for EMS personnel is being met in South Carolina. This report summarizes the results of a survey sent to all EMS agencies actively licensed to deliver services in South Carolina in July of 2018.¹ A total of 269 agencies were in the list provided by the South Carolina Department of Health and Environmental Control (DHEC). Each agency director was sent a letter by U.S. mail explaining the study and asking for their participation. That letter was followed one week later by an email with a link to the on-line questionnaire. Not all agencies participated in the study and a small number were ineligible or could not be reached.

Table 1. Survey recipients and respondents

EMS Agency Survey Totals	
Total # of agencies	269
Agencies not eligible	4
Agencies not reachable (emails bounced)	14
Total number of agencies contacted and eligible	251
Agencies that completed the survey	131
Response rate (131/251)	52.2%

Table 1 summarizes the results. A total of 131 agencies completed the survey questionnaire, resulting in an adjusted response rate of 52%. Because not all eligible agencies participated in the study, it is important to understand how representative the responding agencies are to the full universe of EMS agencies in the state. We compared the responding agencies with all licensed agencies in terms of their license type and their primary service type.² The results (see Table 2) show that, as a group, the responding agencies had a higher percentage of agencies licensed as advanced providers and a slightly smaller percentage licensed as basic providers than was true of all agencies in the state.

A comparison based on the type of primary service offered (Table 3) showed that as a group the survey respondents had a slightly higher percentage of agencies that were 911 responders with transport ability than is true of the entire universe of EMS agencies in the state.

Table 2. Comparison of respondents with all agencies by license type

Agency License Type	All agencies		Survey Respondents	
	N	%	N	%
Advanced	95	35.3%	62	47.3%
Basic	95	35.3%	37	28.2%
First Responder	49	18.2%	25	19.1%
Air Ambulance	16	5.9%	4	3.1%
Specialty Transport	9	3.3%	1	0.8%
Intermediate	5	1.9%	2	1.5%
Totals:	269		131	

Table 3. Comparison of respondents with all agencies by primary service type

Agency's Primary Service	All agencies		Survey Respondents	
	N	%	N	%
911 Response w/ Transport Ability	106	39.4%	60	45.8%
911 Response wo/Transport Ability	64	23.8%	31	23.7%
Air Medical	17	6.3%	4	3.1%
Medical Transport (Non-Emergency)	74	27.5%	35	26.7%
Specialty Care Transport	8	3.0%	1	0.8%
Totals:	269		131	

¹ In South Carolina the Department of Health and Environmental Control (DHEC) licenses the agencies that provide EMS services, verifies the certification status of active EMS personnel, and monitors the educational programs for EMS personnel.

² See the appendix for a description of the various levels of agency licensure.

Descriptive statistics of responding agencies

Table 4. Regions served

EMS Regions	# of responses	% of total
Upstate	41	31.3%
Midlands	28	21.4%
Pee Dee	28	21.4%
Low Country	24	18.3%
Upstate and Midlands	2	1.5%
Midlands and Pee Dee	3	2.3%
Pee Dee and Low Country	1	0.8%
State-wide (all regions)	2	1.5%
Region not reported	2	1.5%
Total	131	100%

Tables 4 through 7 describe some of the characteristics of the EMS agencies that participated in the study. Most of them provide services in only a single region of the state, and each region is well represented in the data. The great majority (79%) reported annual call volumes of less than 15,000. There was great variety in the number and types of response vehicles used by each agency (Table 6), and Table 8 provides more detail by incorporating annual call volume into the analysis. Table 7 details the types of calls that make up total call volume, summarized by the different types of agencies.

Table 5. Annual call volume

Annual Call Volume	N	%
1 - 14,999	104	79%
15,000 - 29,999	20	15%
30,000 - 44,999	2	2%
45,000 +	3	2%
Call volume unknown	2	2%
	131	100%

Table 6. Number and type of response vehicles

	Range	How many Agencies reported 1 or more	Average per agency
Basic Life Support (BLS)	0 - 35	60	2.33
Advanced Life Support (ALS)	0 - 20	72	2.7
ALS First Response	0 - 13	20	0.38
BLS First Response	0-19	28	0.84
Quick Response Vehicle	0-6	41	0.65

Table 7. Percentage of call volume by agency license type

Agency Type	911 Calls to a Scene	Paramedic Intercept ³ Calls	Interfacility Transport Calls	Medical Transport Calls	Mutual Aid Calls ⁴	Public Assistance/ Other Call Types	Standby Calls ⁵
Basic	61.1%	0%	0.4%	36.9%	0.4%	0.6%	0.6%
Intermediate	99.4%	0.5%	0%	0%	0%	0%	0%
Advanced	63.9%	0.1%	5.2%	29.4%	0%	0.3%	1.0%
First Responder	99.0%	0%	0%	0%	0.3%	0.3%	0.4%
Air Ambulance	47.3%	0%	52.7%	0%	0%	0%	0%
Specialty Care	0.2%	0%	96.0%	3.7%	0%	0%	0%
All responding agencies	68.2%	0.1%	5.1%	25.3%	0.2%	0.4%	0.7%

Call volume percentages are based on call counts reported to SC DHEC January 1 – June, 30, 2018

³ Paramedic intercept is when a paramedic is sent to meet up with another agency's ambulance to tend to a patient needing a higher level of care than the EMTs on site can provide.

⁴ A mutual aid call is when an agency responds to a call from another EMS agency unable to fulfill the initial request for aid.

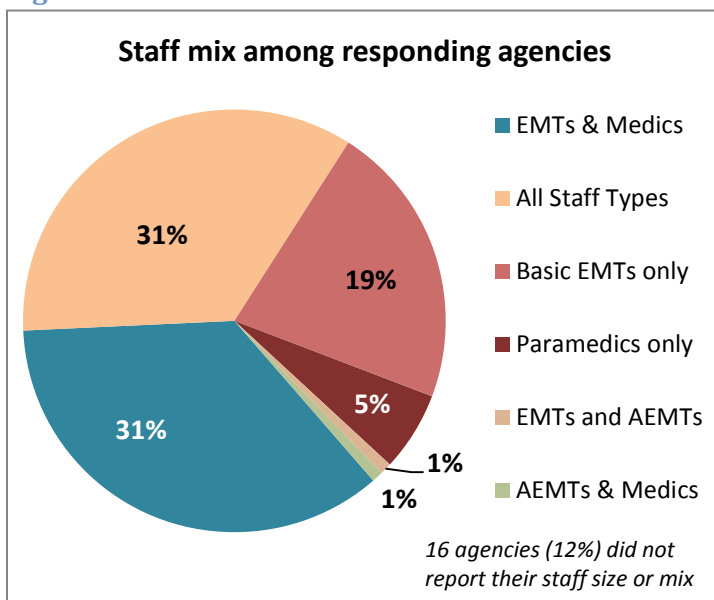
⁵ The sponsors of large public gatherings such as sporting events, concerts or festivals may ask EMS agencies to provide EMS personnel and/or ambulances for the event in a 'stand by' mode.

Table 8. Profile of response vehicle usage by annual call volume

Unit Type	Percent of agencies with:	1 - 14,999	15,000 - 29,999	30,000 - 45,000+
Basic Life Support (BLS)	<i>None</i>	53.0%	47.4%	40.0%
	<i>1 to 5</i>	41.0%	15.8%	0.0%
	<i>6 to 14</i>	6.0%	26.3%	20.0%
	<i>15 - 35</i>	0.0%	10.5%	40.0%
BLS First Response	<i>None</i>	74.8%	100.0%	80.0%
	<i>1 to 5</i>	24.3%	0.0%	0.0%
	<i>6 to 19</i>	0.9%	0.0%	20.0%
Advanced Life Support (ALS)	<i>None</i>	53.4%	0.0%	20.0%
	<i>1 to 5</i>	43.7%	31.6%	20.0%
	<i>6 to 20</i>	2.9%	68.4%	60.0%
ALS First Response	<i>None</i>	85.4%	83.3%	80.0%
	<i>1 to 3</i>	13.6%	16.7%	20.0%
	<i>4 to 13</i>	1.0%	0.0%	0.0%
Quick Response Vehicle	<i>None</i>	73.8%	47.4%	40.0%
	<i>1 to 2</i>	23.3%	36.8%	20.0%
	<i>3 to 6</i>	3.9%	15.8%	40.0%

Workforce Issues

Figure 1. Staff Mix



Most of the responding agencies (116 out of 131) provided information about the number of full time and part time budgeted positions they have for EMTs, AEMTs and Paramedics, and the number of vacant positions for each at the time of the survey. There was a variety of staff mix combinations within agencies, as seen in Figure 1 to the left.

There was also a wide variety in the total staff size in the agencies that responded to the survey. Total staff numbers (based on full time plus part time budgeted positions) ranged from 1 to 240. See Table 9 for a summary of agency size based on their total staff numbers.

Table 9. Total staff size

Total staff size	Frequency	Percent
1 - 14 total	30	22.9
15 - 45 total	42	32.1
46 - 89 total	26	19.9
90 - 240 total	17	13.0
staff #s not reported	16	12.2
	131	100%

Slightly more than half of the agencies participating in the study had a total staff size of 45 or fewer. Many of them had fewer than 15 full and part time staff.

Across all agencies, the majority of EMS budgeted positions are full time (see Figure 2 below). The proportion that are part time varies by personnel type. The agencies whose primary service type is 911 response without transport capability had, as a group, a lower percentage of their EMT staff in part time positions than was true of agencies that were categorized as 911 response with transport capacity or as medical transport. See Table 10 for the ways that agencies differ in their staff configurations and size depending on their primary service type.

Figure 2. EMS Budgeted Positions Full Time and Part Time - All Agencies

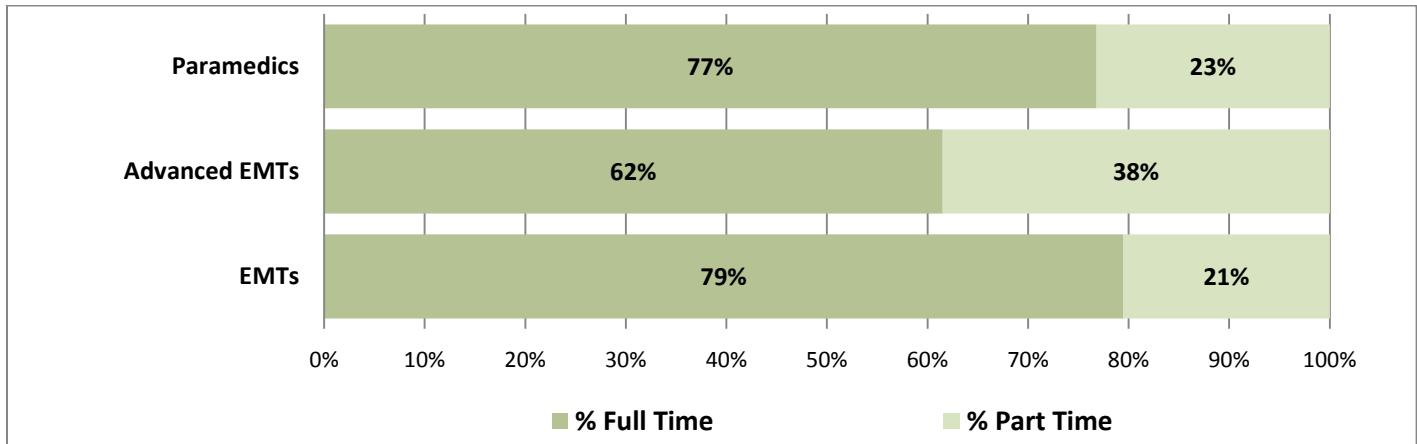


Table 10. Percentage of staff type and size by agency primary service

Primary Service	N	EMTs			AEMTs			Paramedics		
		0	1-24	25+	0	1-24	25+	0	1-24	25+
911 Response w/ Transport Ability	60	18.3	48.3	33.3	51.7	45.0	3.3	21.7	40.0	38.3
911 Response w/ No Transport Ability	31	12.9	54.8	32.3	87.1	12.9	0	61.3	38.7	0
Medical Transport (Non-Emergency)	35	11.4	48.6	40.0	74.3	25.7	0	28.6	57.1	14.3
Air Medical	4	100	0	0	100	0	0	0	100	0
Specialty Care Transport	1	100	0	0	100	0	0	0	100	0
All responding agencies	131	18.3%	48.1%	33.6%	67.9%	30.5%	1.5%	32.1%	46.6%	21.4%

Street Staffing Levels

Agencies were asked to report the number of EMTs, Advanced EMTs and Paramedics they devote to street staffing and how those numbers compare to levels in the previous year, and to what they consider to be an optimal level. Results show an overall increase in street staffing levels over the past year, especially among EMTs. However, the majority of agencies (Table 13) say their current levels of staffing are less than optimal for all types of EMS personnel.

Table 11. How is current street staffing different from last year and from your optimal level?

	EMTs N = 115	Advanced EMTs N = 48	Paramedics N = 92
Sum of reported street staffing levels today	1,560	176	1,176
Sum of total street staffing last year	1,340	142	1,083
Sum of optimal street staffing estimates	1,906	247	1,452
Street staffing change from last year	+220	+34	+93
Total percentage change from last year	+ 16.4%	+23.9%	+8.6%
Current staffing levels from optimal	-346	-71	-276
Total percentage difference from optimal	-18.2%	-28.7%	-19.0%
<i>Six agencies did not provide any staffing information.</i>			

Table 12. What percentage of agencies say that street staffing is higher or lower than last year?

	EMTs N = 115	Advanced EMTs N = 48	Paramedics N = 92
Higher than last year	43.8%	43.8%	38.0%
About the same	33.9%	43.8%	37.0%
Lower than last year	22.6%	12.5%	25.0%
	100%	100%	100%

Table 13. What percentage of agencies say their current street staffing is more or less than optimal?

	EMTs N = 101	Advanced EMTs N = 35	Paramedics N = 82
Less than optimal	71.3%	62.9%	73.2%
At the optimal level	19.8%	25.7%	23.2%
Higher today than optimal	8.9%	11.4%	3.7%
	100%	100%	100%

Only a few agencies expect to decrease their level of street staffing over the next two years – see Table 14. The majority of agencies participating in the study (67%) are planning to increase their number of personnel. Table 15 shows how much those agencies are planning to expand or shrink their street staffing levels for EMTs, Advanced EMTs, and Paramedics.

Table 14. Anticipated changes in street staffing levels

Do you expect any changes in your agency's level of street staffing over the next 2 years?		
	N	%
No changes expected	38	30%
Yes - we expect to increase staffing	84	67%
Yes - we expect to decrease staffing	3	2%
	125	99%
<i>Percentages do not sum to 100% due to rounding.</i>		

Not all agencies planning to change their street staffing levels employ all types of EMS personnel. Those agencies are included in the percentages in Table 15. The percentage of agencies that did not employ a specific type of personnel appears in Table 15 as “not applicable.”

Table 15. Percentage of increase or decrease planned

Of those agencies that expect to <u>increase</u> staffing, how much of an increase is expected over current levels?			
Percentage change planned:	EMTs	Advanced EMTs	Paramedics
Less than 10%	22%	34%	30%
10% - 25%	48%	16%	39%
26 - 40%	17%	5%	11%
41% - 60%	4%	2%	3%
More than 60%	5%	2%	4%
Not applicable	5%	41%	13%
Of those agencies that expect to <u>decrease</u> staffing, how much of a decrease is expected over current levels?			
Percentage change planned:	EMTs	Advanced EMTs	Paramedics
Less than 10%	-	-	-
10% - 25%	100%	50%	-
26 - 40%	-	-	50%
41% - 60%	-	-	50%
More than 60%	-	-	-
Not applicable		50%	

Vacancy Rates

Agencies reported the number of full time and part time positions they have budgeted for different types of EMS personnel and the number of full or part time positions that were vacant at the time of the survey. This information can be used in two different ways to estimate vacancy rates. Table 16 summarizes the information statewide and by region.

Position vacancy rates

By summing up the total number of vacant positions across all responding agencies and dividing that by the total number of budgeted positions it is possible to estimate a position vacancy rate. This measure is an estimate of the percentage of all budgeted positions within the state that are vacant at a specific point in time. A position vacancy rate eliminates the impact of agency size. See Table 16 and Figure 3 for the position vacancy rates for EMTs, AEMTs and Paramedics, based on information provided by the study participants. To the extent that the agencies that participated in the study are representative of the full population of EMS agencies in the state, these position vacancy rates suggest that the labor market is tight when trying to fill full time positions for all types of EMS personnel, but that there is a significant difficulty in finding EMS personnel willing or available to take part time positions at the prevailing wage and benefit levels.

Figure 3. Position Vacancy Rates by Personnel Type

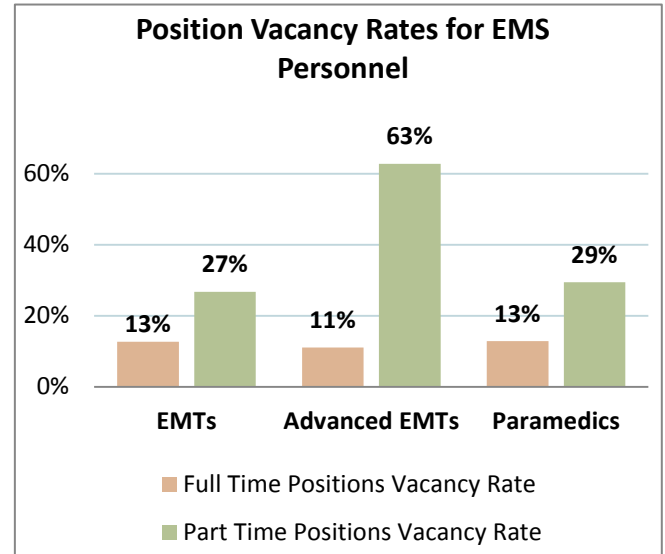


Table 16. Budgeted and vacant positions and corresponding position vacancy rate

	Full Time Positions			Part Time Positions		
	Budgeted Positions	Vacant Positions	Position Vacancy Rate	Budgeted Positions	Vacant Positions	Position Vacancy Rate
EMTs	2,251	285	12.7%	581	155	26.7%
Advanced EMTs	163	18	11.0%	102	64	62.7%
Paramedics	1,646	213	12.9%	500	147	29.4%

Agency vacancy rates -

Each agency has their own vacancy rate, based on the number of positions they have budgeted and the number that were vacant and being recruited at the time of the survey. For example, an agency with 20 positions for full time EMTs that has 2 vacant positions will have a 10% agency vacancy rates for full time EMTs: $2/20 = 10\%$.

Among the agencies that participated in the study, 50% had vacancies for full-time EMT positions at the time of the survey. See Table 17 for a summary of vacancy information, including the average agency vacancy rate for different types of personnel. Be aware that an agency employing only 4 or 5 staff with one or two vacancies can result in a very high rate that can inflate the agency average, but the average also includes agencies that had a zero vacancy rate which can pull down the average.

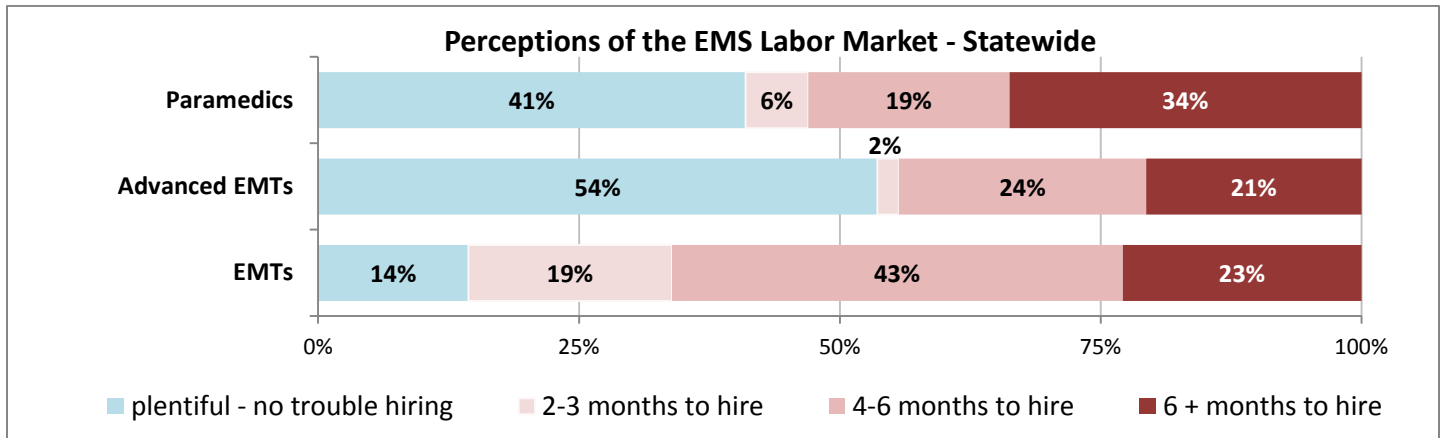
Table 17. Vacancy rates and numbers by personnel type and EMS region

	EMTs		Advanced EMTs		Paramedics	
	Full Time	Part Time	Full Time	Part Time	Full Time	Part Time
All Responding Agencies:						
Total N reporting data	105	70	36	22	86	67
% reporting vacancies	50%	59%	19%	55%	49%	52%
Average agency rate	12%	29%	7%	42%	14%	31%
Position vacancy rate	12.7%	26.7%	11.0%	62.7%	12.9%	29.4%
# of vacancies reported	285	155	18	64	213	147
Upstate						
Total N reporting data	36	22	8	5	26	19
% reporting vacancies	44%	64%	0%	20%	35%	42%
Average agency rate	10%	28%	0%	20%	11%	17%
Position vacancy rate	7.1%	26.0%	0.0%	25.0%	7.2%	18.0%
# of vacancies reported	53	58	0	2	35	29
Midlands						
Total N reporting data	22	16	14	6	20	18
% reporting vacancies	41%	56%	14%	50%	75%	61%
Average agency rate	11%	31%	4%	36%	17%	37%
Position vacancy rate	12.3%	26.7%	7.1%	69.6%	17.1%	36.6%
# of vacancies reported	40	36	3	32	88	53
Pee Dee						
Total N reporting data	20	17	7	5	18	14
% reporting vacancies	50%	53%	29%	80%	28%	57%
Average agency rate	16%	29%	10%	67%	8%	35%
Position vacancy rate	14.0%	25.6%	13.6%	84.6%	12.7%	36.1%
# of vacancies reported	27	23	3	11	25	26
Low Country						
Total N reporting data	22	11	6	5	15	11
% reporting vacancies	64%	55%	50%	80%	67%	64%
Average agency rate	12%	26%	21%	56%	19%	50%
Position vacancy rate	16.1%	21.6%	30.0%	70.4%	11.1%	39.1%
# of vacancies reported	139	21	12	19	40	36
Multiple Regions						
Total N reporting data	4	4	0	0	6	4
% reporting vacancies	100%	75%	na	na	33%	25%
Average agency rate	31%	43%	na	na	22%	15%
Position vacancy rate	21.7%	47.2%	na	na	35.8%	13.6%
# of vacancies reported	26	17	na	na	19	3

Labor Market Perceptions

Basic EMTs

Figure 4. Statewide Labor Market Assessment



Looking at the state as a whole (Figure 4 above), 66% of agencies participating in the study said it takes at least 4 months to hire a basic EMT; slightly more than half (53%) said hiring a Paramedic takes at least 4 months, and almost half (45%) said the same thing about hiring an Advanced EMT. However, there were some differences in labor market perceptions by the type of license held by an agency (see Figure 5) where those licensed as first responder or advanced care agencies thought it took longer to hire EMTs. Regional analysis (see Figure 6) showed that about one-quarter of the agencies in each region said that hiring an EMT currently takes 6 months or more. The Low Country and the Upstate regions seem to have the longest job-fill times for EMTs.

Figure 5. EMT Supply by License Type

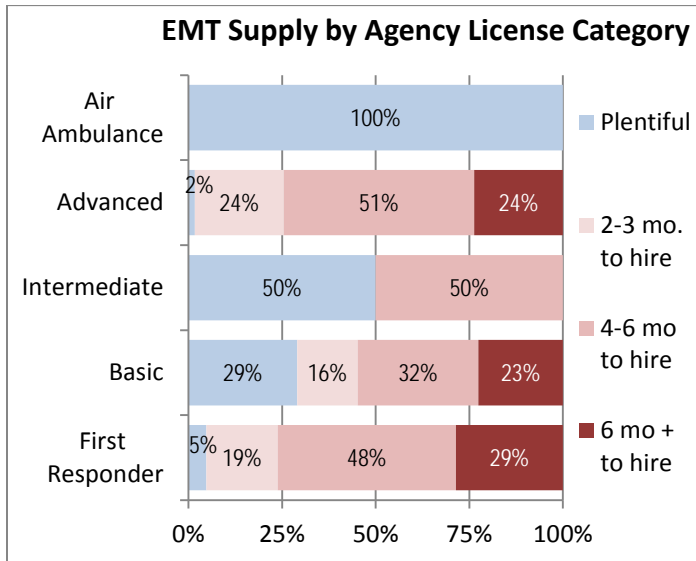


Figure 6. EMT Supply by Region

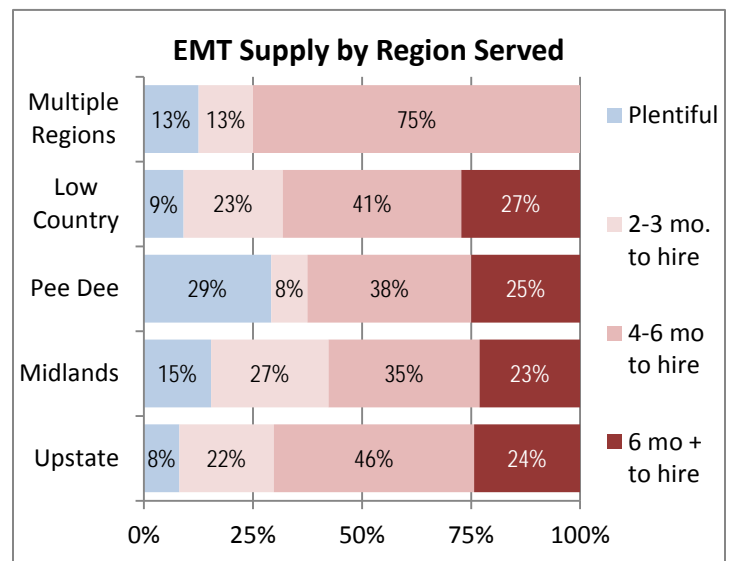
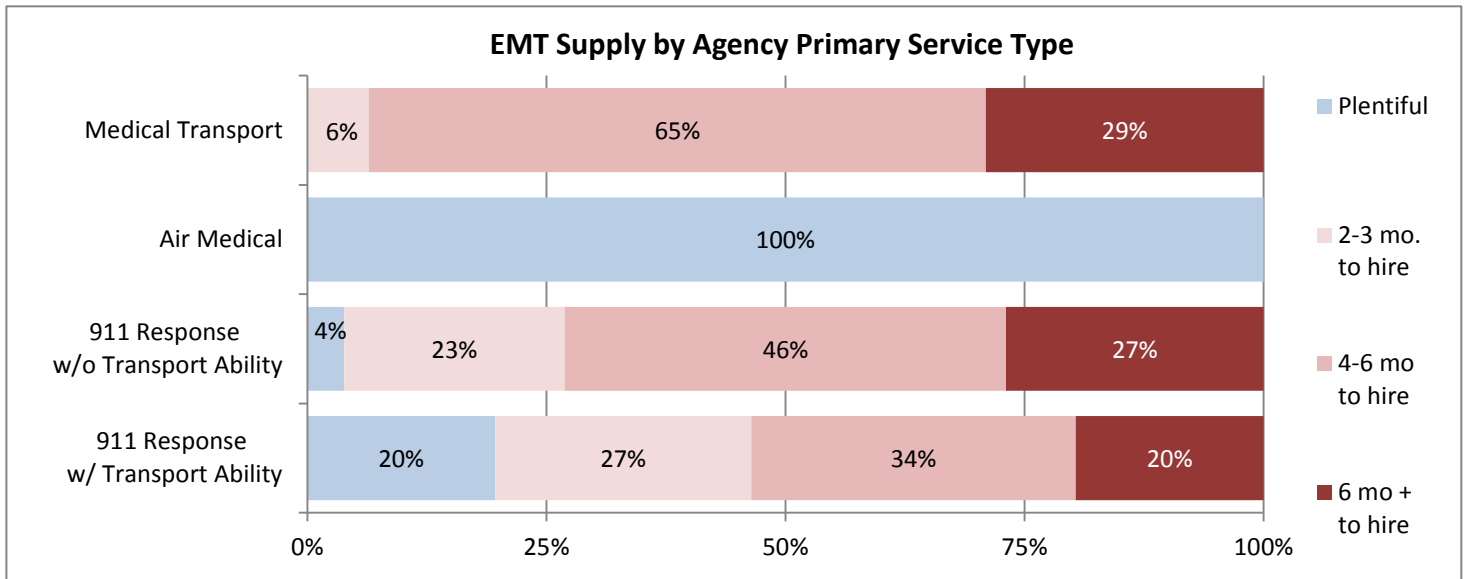


Figure 7. EMT Supply by Agency's Primary Service



The great majority of agencies (82%) responding to the survey employ EMTs, regardless of their primary service type (see Table 10) and Figure 7 above shows that, with the exception of the small number of agencies focused on medical air services (n=4), the majority report that hiring an EMT takes at least 4 months in their market area.

However, since not every agency had EMTs in their staff mix at the time of the survey we also reviewed how having or not having EMTs employed might affect the perception of the local labor market for EMTs. We found that, regardless of the primary service line of the agency, those that were employing EMTs at the time of the survey were more likely to say that hiring was difficult (4 – 6 months to hire) or very difficult (6 months or more to hire) than agencies that did not directly employ EMTs.

Advanced EMTs

Agencies also assessed their local labor market for Advanced EMTs. Based on their license type (see Figure 8), most agencies felt the supply of Advanced EMTs to be plentiful in their area, with the exception of agencies with an advanced care license. Regional analysis (see Figure 9) showed a majority of agencies in the Midlands region felt that filling vacancies for AEMTs was difficult, while those in the Pee Dee region were evenly split between seeing the available supply of AEMTs as plentiful or as difficult to find. There was more variation among agencies based on their primary service type (see Figure 10). For those that provide medical transport as their primary business, 49% perceived the market for AEMTs to be tight – taking 4 months or more to hire an AEMT. But an almost equal amount (48%) said Advanced EMTs were plentiful. Agencies focused on responding to 911 calls with transport capability had similar assessments of the AEMT labor market.

Figure 8. AEMT Supply by License Type

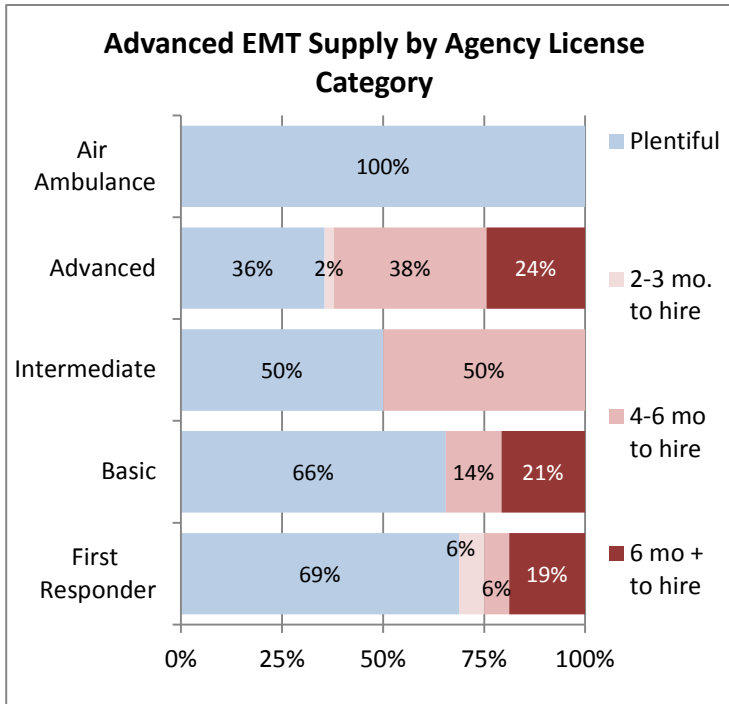


Figure 9. AEMT Supply by Region

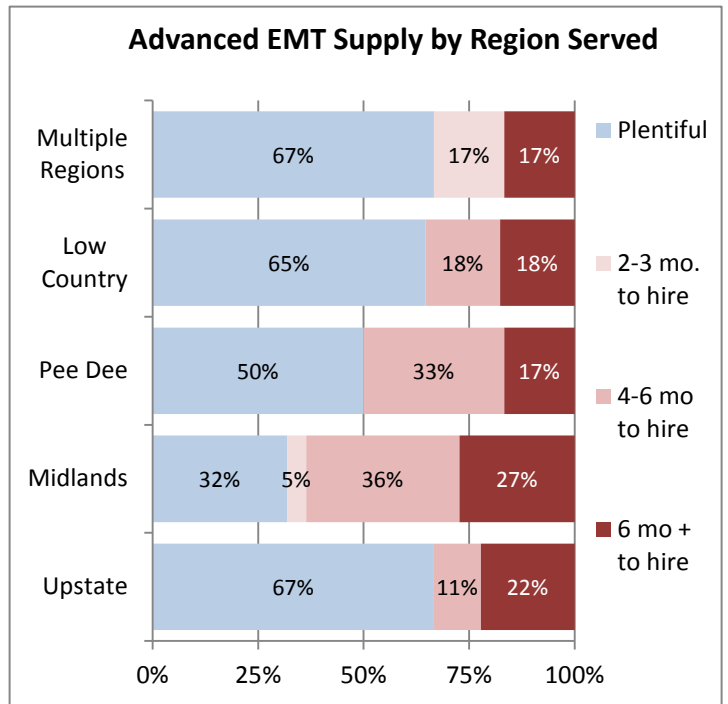
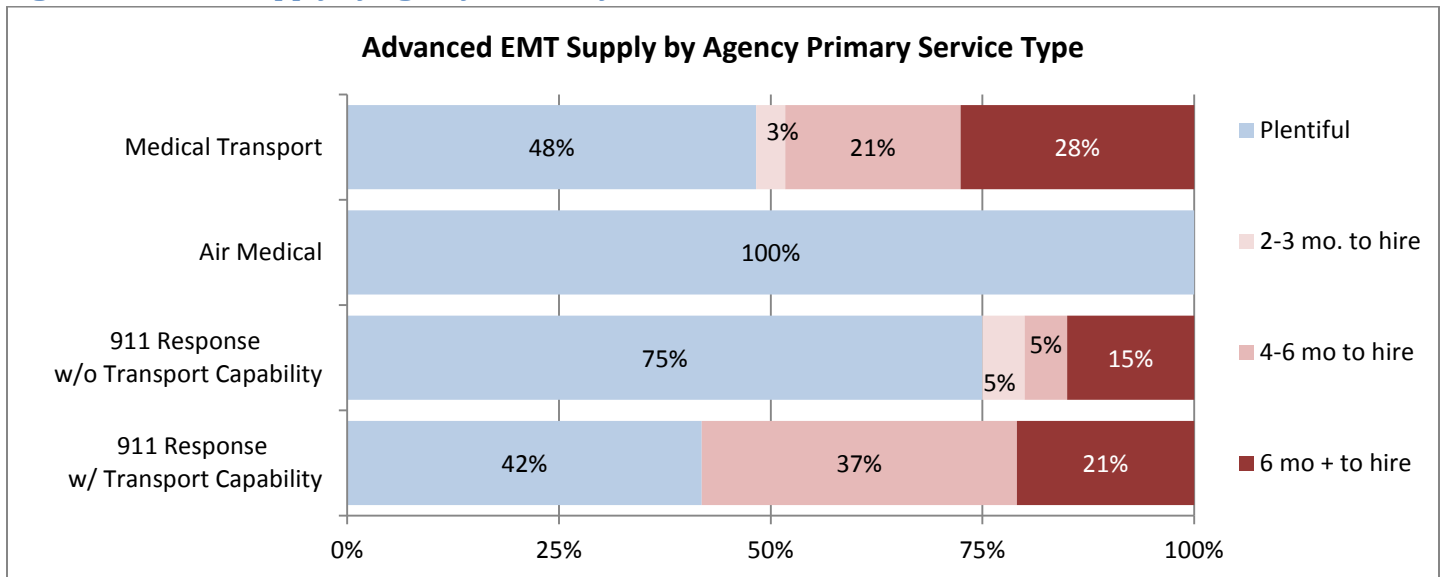


Figure 10. AEMT Supply by Agency's Primary Service



When we controlled for whether or not an agency actually included AEMTs in their staff mix, there was a significant difference in their assessment of the AEMT labor market. Agencies that had AEMTs on staff were much more likely to say that filling AEMT vacancies was difficult (4 – 6 months to hire) or very difficult (6 + months to hire an AEMT) than the agencies with the same primary service type, but that did not have AEMTs in their staff mix.

Paramedics

Figures 11 and 12 reveal deep differences in the assessment of the Paramedic labor market by agency license type and regional location, respectively. It appears that, compared to EMTs and AEMTs, filling vacancies for Paramedics is much more difficult in all regions of the state. When examining the way that agencies with different primary service lines assess the availability of Paramedics, it should be noted that the majority of agencies employ Paramedics, with the exception of those focused on 911 calls but without transport ability. Agencies that were employing Paramedics at the time of the survey were much more likely to say that it takes at least 4 – 6 months or longer to hire a Paramedic.

Figure 11. Paramedic Supply by License Type

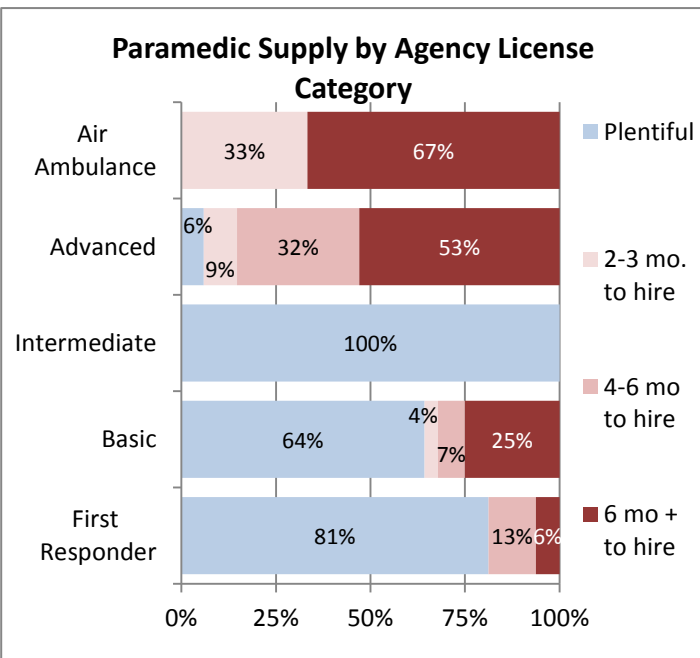


Figure 12. Paramedic Supply by Region

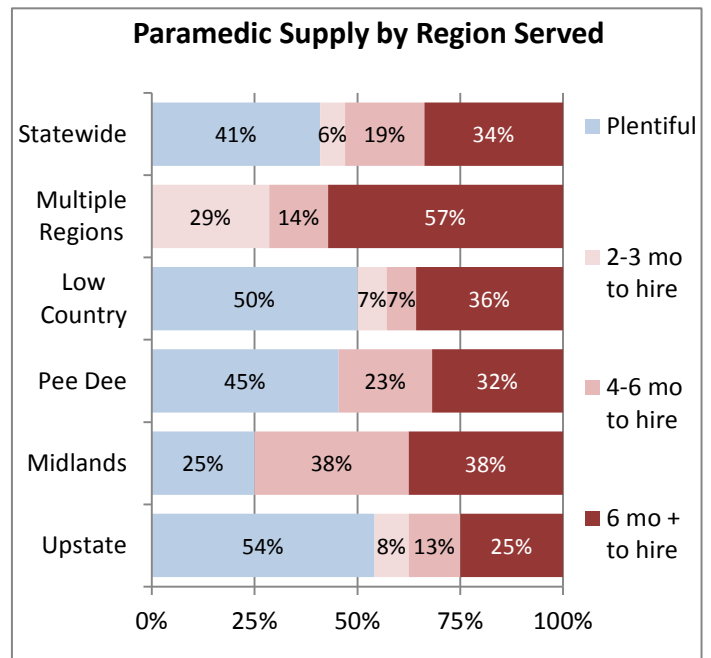
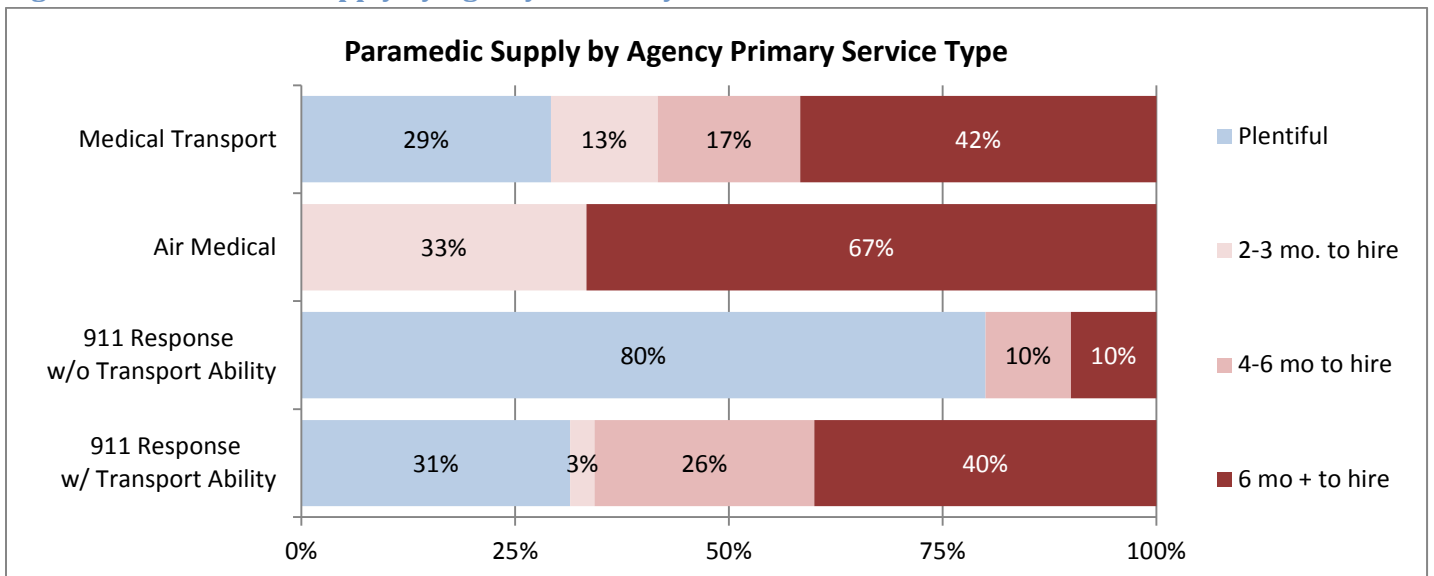


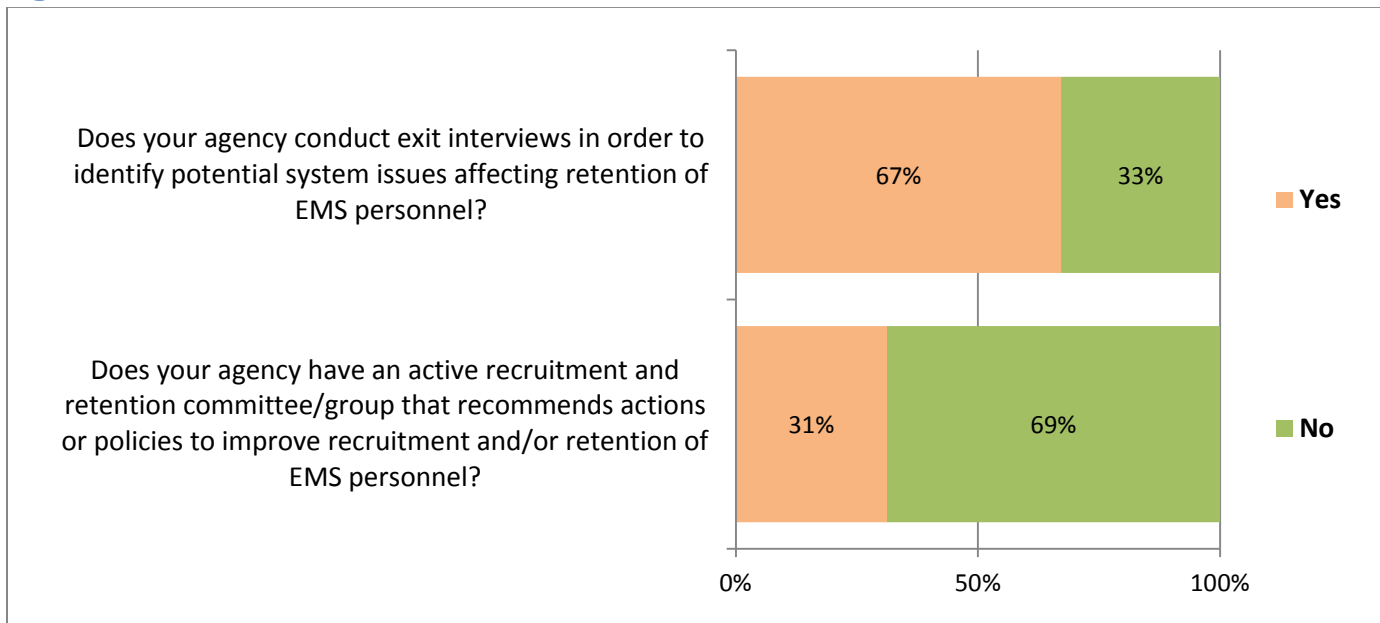
Figure 13. Paramedic Supply by Agency's Primary Service



Retention Activities

Retaining employees is always the best defense when the labor market becomes tight, rather than having to recruit new employees. Agencies reported on their efforts to address retention (see Fig. 14), their ideas about the factors that contribute to staff turnover (see Figure 15 and Table 18) and some suggestions for specific actions to retain employees (in Figure 16 and Table 19).

Figure 14. Retention Activities



Survey respondents were asked: **What do you think are the biggest factors contributing to EMT and/or Paramedic staff turnover?** Their answers are summarized in the graphic word cloud on the next page and in Table 18. Poor pay scales and poor benefit packages together accounted for 46% of the reasons offered. Burnout and the conditions that lead to burnout were also emphasized, as were barriers to career mobility.

Figure 15. Factors leading to staff turnover



Table 18. Reasons for Turnover

Reasons for Staff Turnover	Idea Count	% of Total	Reasons for Staff Turnover	Idea Count	% of Total
Poor pay	91	41.7%	Too-few-medics	8	3.7%
Poor-benefits	10	4.6%	Understaffing	1	0.5%
			Management-issues	5	2.3%
Burnout	8	3.7%			
Long-hours	21	9.6%	Call-volume issues	3	1.4%
Difficult-working-conditions	9	4.1%	Low-call-volume	4	1.8%
Shift-work	6	2.8%	High-call-volume	9	4.1%
Lack-of-respect	5	2.3%			
			Long-training-time	2	0.9%
No-career-ladder	12	5.5%	Poor-quality-education	2	0.9%
Other-professions-more-attractive	16	7.3%	Training-requirements	3	1.4%
			Cost-of-education	3	1.4%
			Total Ideas Offered	218	100%

Figure 16. Retention strategies



Some of the ideas about how to improve retention were general in nature, and others very specific. Very few (n=10) agencies said they do not employ any retention strategy. The 187 comments received about how best to retain staff members who are thinking of leaving are summarized in the word cloud above and in Table 19. Improving wages and benefits, either in general or in specific ways, were the most common ideas put forward. The importance of management creating positive work environments and encouraging employee engagement also were voiced by respondents.

Table 19. Staff retention strategies

Topic	Strategy	Times mentioned	% of total ideas offered
Pay	pay-increases	17	9.1%
	good-pay	10	5.3%
	good-pay-and-benefits	7	3.7%
	annual/periodic-pay-increase	3	1.6%
	differential-pay	2	1.1%
	incentive-pay	2	1.1%
	career-ladder-pay-scale	3	1.6%
	retention-bonus	3	1.6%
	sign-on bonus	2	1.1%
	year-end-bonus	2	1.1%
	Total Pay Related Ideas	51	27.3%
Benefits	paid-training	19	10.2%
	good-benefits	8	4.3%
	good-leave-benefits	5	2.7%
	paid-vacation	1	0.5%
	paid-life-insurance	2	1.1%
	low-cost-insurance	1	0.5%
	paid-uniforms	3	1.6%
	provide a 401k	2	1.1%
	meal-reimbursement	1	0.5%
	tenure-dependent-benefits	1	0.5%
	incentive-benefits	1	0.5%
	Total Benefit Related Ideas	44	23.5%
	Management tactics	positive-work-environment	15
employ-innovative-practices		1	0.5%
engaged-leadership		3	1.6%
pay-attention-to-morale		1	0.5%
value-our-employees		7	3.7%
station-rotation-to-equalize-stress		1	0.5%
low-stress-environment		1	0.5%
progressive-protocols		3	1.6%
internal-promotion		1	0.5%
evaluation		1	0.5%
peer-review-process		1	0.5%
Total Management Strategies		35	18.7%

Table 19 continued

Topic	Strategy	Times mentioned	% of total ideas offered
Employee Engagement	employee-recognition	13	7.0%
	employee-engagement	4	2.1%
	appreciation-events	3	1.6%
	team-building-events	1	0.5%
	employee-incentives	2	1.1%
	employee-opportunities	1	0.5%
	teaching-opportunities	1	0.5%
	community-involvement-opportunities	1	0.5%
	Total Employee Engagement Ideas	26	13.9%
Employee support efforts	high-quality-equipment	8	4.3%
	training-opportunities	5	2.7%
	quality-training	2	1.1%
	local-training	1	0.5%
	loan-program-for-paramedics	1	0.5%
	employee-support	2	1.1%
	Total Employee Support Ideas	19	10.2%
Scheduling	flexible-schedules	8	4.3%
	good-shift-schedules Total	1	0.5%
	12-hour-shifts	2	1.1%
	24/72 shift schedule	1	0.5%
	Total Scheduling Ideas	12	6.4%

Conclusions

This study of EMS agencies in South Carolina was designed to provide some insight into the variety of agency types and their personnel needs and resources. Specific questions about their staffing levels and the extent to which those levels might change in the future, combined with an assessment of the availability of EMS personnel in their market areas, allows us to evaluate whether the supply of available EMS personnel is in balance with the demand for personnel from employers.

Our results show that most agencies assess their current street staffing as less than optimal, and would like to increase those staff levels in the near future for EMTs, AEMTs and Paramedics. However, the elevated vacancy rates being reported for both full-time and part-time EMS staff at all levels suggests that achieving optimal staff levels may be more difficult than in the past. There are variations in the vacancy rates by region although every EMS region in the state is experiencing high vacancy rates for one or more types of EMS personnel.

The most common solution to a tightening labor market, as evidenced by increasing vacancy rates and lengthy job-fill times, is to raise wages. Wage increases generally encourage people to stay in the workforce who might otherwise leave and makes the job market, in this case for EMS personnel, more attractive to new entrants. The respondents to our survey often cited poor wages and benefits as both the major cause of staff turnover in their agencies and one of the potential solutions for retaining personnel. Some of the high vacancy rates may be due, at least in part, to high turnover and the movement of personnel from one agency to another in an attempt to improve wages and benefits.

Emergency services personnel such as EMTs and Paramedics play a critical role as first responders in an emergency and in providing pre-hospital care and transport. In some rural areas of South Carolina Paramedics in low volume call areas are being trained to provide services to people in their homes such as home safety assessments, wound care or medical equipment checks. It is incumbent upon our EMS agencies, educational programs and the systems that fund EMS services to ensure that we maintain an adequate supply of new and experienced EMS personnel into the future.

Definitions

The definitions below were taken from the SC DHEC publication titled “Regulation 61-7, Emergency Medical Services” downloaded from <https://www.scdhec.gov/sites/default/files/Library/Regulations/R.61-7.pdf> on November 16, 2018.

EMS Personnel Categories:

Emergency Medical Technician (EMT): Formerly called an “EMT-Basic,” this nationally credentialed level of prehospital emergency medical providers is a person who is specially trained and certified to administer basic emergency services to victims of trauma or acute illness before and during transportation to a hospital or other healthcare facility.

Advanced Emergency Medical Technician (AEMT): A nationally credentialed mid-level prehospital emergency medical provider. The AEMT is intended to deliver augmented prehospital critical care and provide rapid on-scene treatment, working in conjunction with EMTs and Paramedics. The AEMT is authorized to provide more advanced medical treatment than the EMT.

Paramedic: The highest nationally credentialed level of prehospital emergency medical providers. The Paramedic is intended to provide leadership and to deliver prehospital emergency care and provide rapid on-scene treatment. The Paramedic is authorized to provide the highest level of prehospital care in accordance with standards set by the South Carolina DHEC.

Agency License Categories:

Basic Life Support Service: A service provider that meets all criteria for basic life support minimum standard and is able to provide one EMT to one hundred percent (100%) of all calls and the ability to provide blind insertion airway devices (BIADs) and defibrillation capability.

Intermediate Life Support Service: A service provider that, in addition to basic life support minimum standard, provides at least two (2) EMTs, one of which is an EMT-I, AEMT or Paramedic and demonstrates the capability to provide IV therapy, blind insertion airway devices (BIADs), and defibrillation capability.

Advanced Life Support Service: A service provider that in addition to basic life support minimum standard, provides at least two (2) EMTs, one of which is a Paramedic and demonstrates the capability to provide IV therapy, advanced airway care, approved medication therapy, cardiac monitoring and defibrillation capability.

Advanced Life Support: An advanced level of prehospital, inter-hospital, and emergency service care which includes but is not limited to the treatment of life-threatening medical emergencies through the use of techniques such as endotracheal intubation, administration of medications or intravenous fluids, cardiac monitoring, and electrical therapy by a qualified person pursuant to SC DHEC regulations.

Air ambulance: Any aircraft that is intended to be used for and is maintained or operated for transportation of persons who are sick, injured or otherwise incapacitated.

EMT Rapid Responder Agency: Formerly known as “EMT First Responder Service,” a licensed agency providing medical care at the EMT level or above as a non-transporting rapid responder.