



Nebraska  
Center  
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Rural  
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Research

## **Emergency Medical Services of Nebraska Workforce Study**

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The Nebraska Center for Rural Health Research, formed in 1990, is located within the College of Public Health at the University of Nebraska Medical Center.

The broad mission of the Nebraska Center is to conduct research and analysis related to improving health care delivery in rural areas. The center focuses on special populations among rural residents, including the elderly; children; minorities; the mentally ill; the underinsured and the uninsured; and new immigrants, whose needs for assistance are unique.

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## **STUDY BACKGROUND**

The Nebraska Center for Rural Health Research at the University of Nebraska Medical Center (UNMC) was contracted by the Nebraska Emergency Medical Services (EMS)/Trauma Program at the Nebraska Department of Health and Human Services to conduct an online survey of 413 licensed EMS services in Nebraska in the fall of 2009. The purpose of this study was to inform the Nebraska EMS/Trauma Program and its stakeholders about the current status of the Nebraska EMS workforce and other workforce-related issues. Results from this survey will be used by the Nebraska EMS/Trauma Program and other policy makers to identify areas of need within the Nebraska EMS workforce.

## **STUDY METHODS**

Upon a systematic review of similar studies conducted with the EMS population (both local and national)<sup>1,2,3</sup> and with input from local and national EMS experts, UNMC researchers developed a structured survey instrument that was reviewed and pilot tested by a selected panel of EMS experts. Researchers utilized a modified Dillman method for survey implementation and data collection.<sup>4</sup> Pre-notification of the survey was sent by the Nebraska EMS/Trauma Program director via both the U.S. Postal Service and e-mail to the EMS liaison at each service; this letter was followed by an e-mail from UNMC researchers containing a direct link to the online survey and contact information for the research team. Additional contacts were made only to non-responders asking them to complete the survey. Of the 413 EMS services invited to participate in the study, 359 completed the survey and 2 were reported to be closed or no longer providing services in Nebraska; thus the overall response rate was 87.3% (359/411). While this survey was primarily conducted online, 22 EMS services opted to complete a hard copy due to slow Internet speeds and personal preference. Responses collected online were input directly into the study database. Responses collected via hard copy were entered manually by a research assistant and verified by a member of the research team. SAS Statistical Software<sup>®</sup> was used to clean and analyze these data. Descriptive analyses of these data were conducted at the state level and by EMS region (see Appendix, Figure 1), service level (i.e., Advanced Life Support [ALS] vs. Basic Life Support [BLS]), and transport status (i.e., transport vs. non-transport).

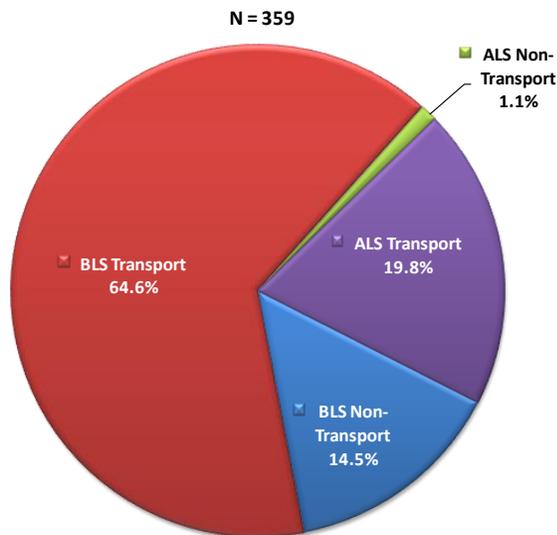
## STUDY FINDINGS

### Services Provided

Of the 359 responding EMS services, 284 (79.1%) were licensed BLS services, while the remaining 75 (20.9%) were licensed ALS services (Figure 1).

The majority of responding EMS services (84.4%) were licensed to transport patients (Figure 1). Of the 56 responding EMS services that were non-transport (15.6%), only 4 (0.7%) were ALS services.

**Figure 1. Percentage of Responding EMS Services by License Type, Nebraska 2009**



Source: Nebraska Department of Health and Human Services, Nebraska EMS & Trauma Program Workforce Survey, 2009.

The Northeast region had the greatest percentage of responding EMS services (21.8%), while the Panhandle region had the lowest percentage (7.3%). With the exception of the Metro region, all EMS regions had a greater proportion of BLS services than ALS services. Of the responding ALS services (n = 74), half were located in the Metro or Northeast region, and the lowest percentage was located in the Western region (Table 1).

**Table 1. Number and Percentage of Responding EMS Services by Region, Nebraska 2009**

Region	BLS		ALS		Total	
	No.	%	No.	%	No.	%
Metro	13	4.6	19	25.3	32	8.9
North Central	49	17.3	7	9.3	56	15.6
Northeast	60	21.1	18	24.0	78	21.7
Panhandle	19	6.7	8	10.7	27	7.5
South Central	62	21.8	9	12.0	71	19.8
Southeast	59	20.8	9	12.0	68	18.9
Western	22	7.7	5	6.7	27	7.5
<b>Total</b>	<b>284</b>	<b>100.0</b>	<b>75</b>	<b>100.0</b>	<b>359</b>	<b>100.0</b>

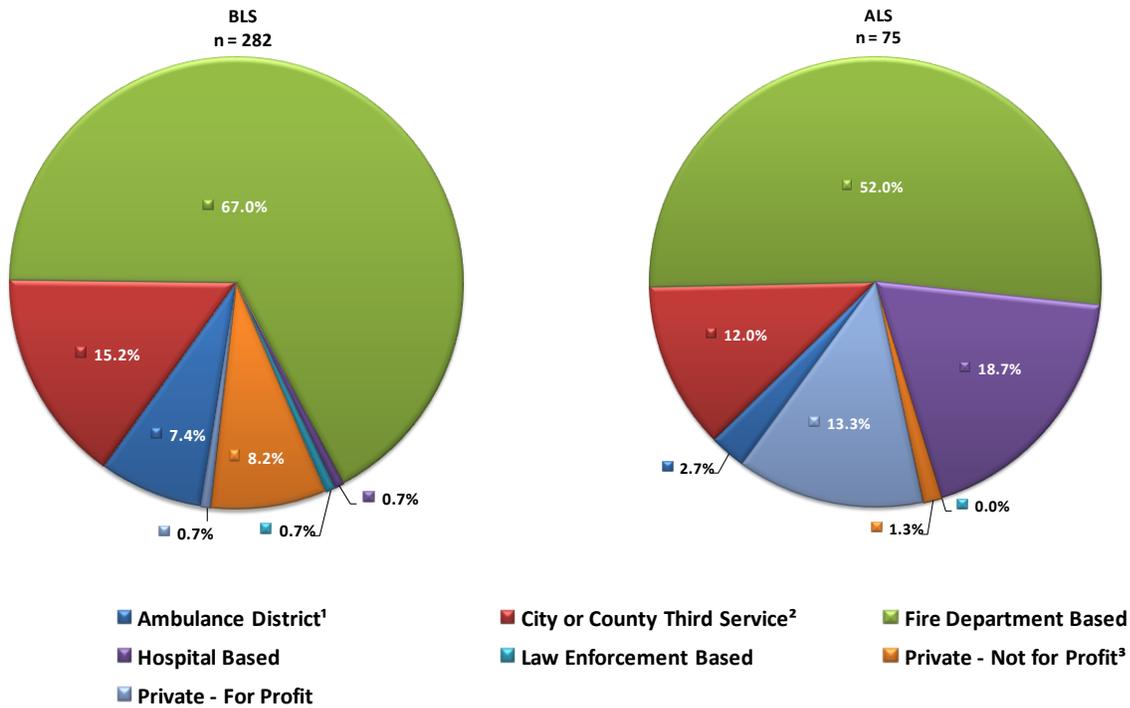
Source: Nebraska Department of Health and Human Services, Nebraska EMS & Trauma Program Workforce Survey, 2009.

Note: "BLS" includes transport and non-transport basic life support services; "ALS" includes transport and non-transport advanced life support services.

Of the 359 responding EMS services, the majority (63.9%) were fire department based, while the lowest percentage (0.6%) were law enforcement based. Although fire department based services represented the majority of both responding BLS and ALS services, compared to BLS services, ALS services had a higher proportion of hospital based services (18.7% vs. 0.7% for BLS) and private-for profit services (13.3% vs. 0.7% for BLS). However, BLS services had a higher proportion of private non-profit services (8.2% vs. 1.3% for ALS) and ambulance district based services (7.4% vs. 2.7% for ALS) (Figure 2).

Fire department based services were asked to indicate their service's requirements for membership/employment in regard to the distinction between EMS and firefighter responsibilities. Of the 211 fire department based services that responded to this question, 37.0% indicated that their members/employees were required to attend both firefighter and EMS training or calls, 35.1% reported that their members/employees were allowed to be EMS only and were not required to attend firefighter training or calls, and the remaining 28.0% indicated that their members/employees were allowed to be firefighters only and were not required to attend EMS training or calls (Figure 3).

**Figure 2. Percentage of Responding EMS Services by Type of Governance, Nebraska 2009**



Source: Nebraska Department Health and Human Services, Nebraska EMS & Trauma Program Workforce Survey, 2009.

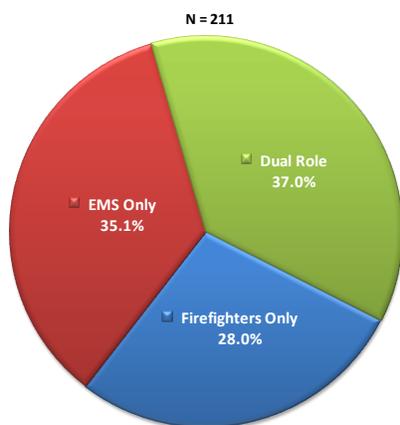
Note: “BLS” includes transport and non-transport basic life support services; “ALS” includes transport and non-transport advanced life support services; 2 missing records.

<sup>1</sup>Ambulance districts that do not contract with other entities that provide EMS services.

<sup>2</sup>Separate department not part of the fire or police department.

<sup>3</sup>Not affiliated with a hospital or government entity.

**Figure 3. Percentage of Responding Fire Department Based EMS Services by Requirements for Membership/Employment, Nebraska 2009**



Source: Nebraska Department of Health and Human Services, Nebraska EMS & Trauma Program Workforce Survey, 2009.

Note: Fire department based EMS services include transport and non-transport for both BLS and ALS services; 2 missing records.

As shown in Table 2, the majority of responding EMS services respond to 911 emergency calls (95.8% BLS and 88.6% ALS), followed by standbys (72.6% BLS and 75.0% ALS), and inter-facility transfers (27.7% BLS and 49.3% ALS).

Of the responding services, 86.6% reported that they responded to 300 or fewer 911 emergency calls in 2008, with 43.8% responding to 50 or fewer 911 emergency calls. Of the responding services, 88.4% reported that they responded to 300 or fewer inter-facility calls in 2008, with 64.2% responding to 50 or fewer inter-facility calls. Of the responding services, 94.0% reported responding to 50 or fewer standby calls in 2008 (Figure 4).

**Table 2. Number and Percentage of Responding EMS Services by Provided Call Types, Nebraska 2008**

Service Type	911 Emergency Calls <sup>1</sup>		Standbys <sup>2</sup>		Inter-Facility Transfers <sup>3</sup>	
	No.	% (n)	No.	% (n)	No.	% (n)
BLS	251	95.8 (262)	172	72.6 (237)	63	27.7 (227)
ALS	62	88.6 (70)	48	75.0 (64)	33	49.3 (67)

Source: Nebraska Department of Health and Human Services, Nebraska EMS & Trauma Program Workforce Survey, 2009.

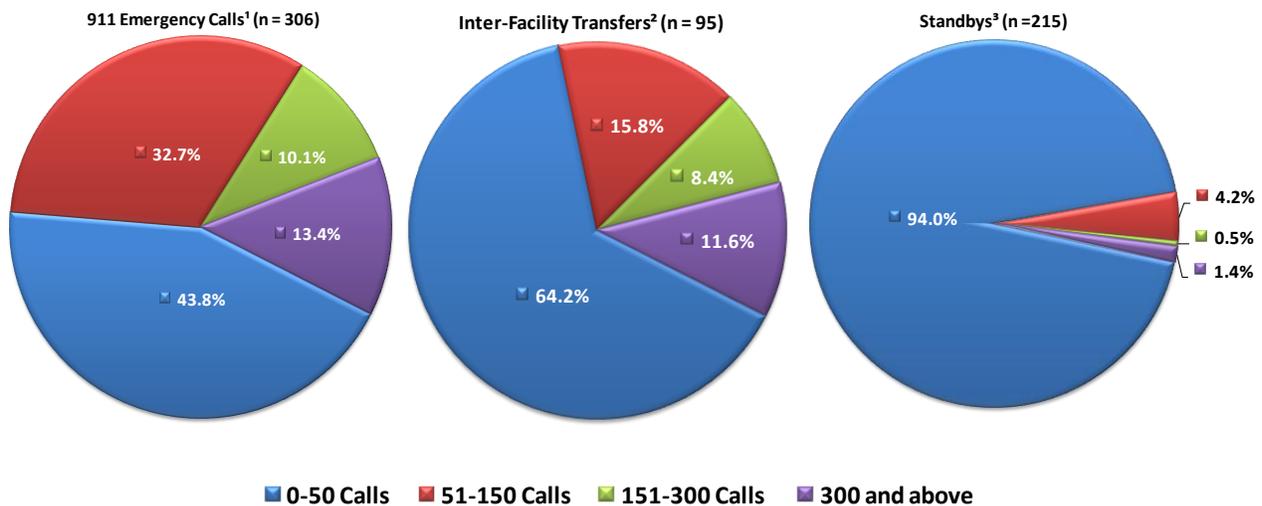
Note: "BLS" includes transport and non-transport basic life support services; "ALS" includes transport and non-transport advanced life support services.

<sup>1</sup>27 missing records.

<sup>2</sup>58 missing records.

<sup>3</sup>65 missing records.

**Figure 4. Percentage of Responding EMS Services by Provided Call Types and Number of Calls, Nebraska 2008**



Source: Nebraska Department of Health and Human Services, Nebraska EMS & Trauma Program Workforce Survey, 2009.

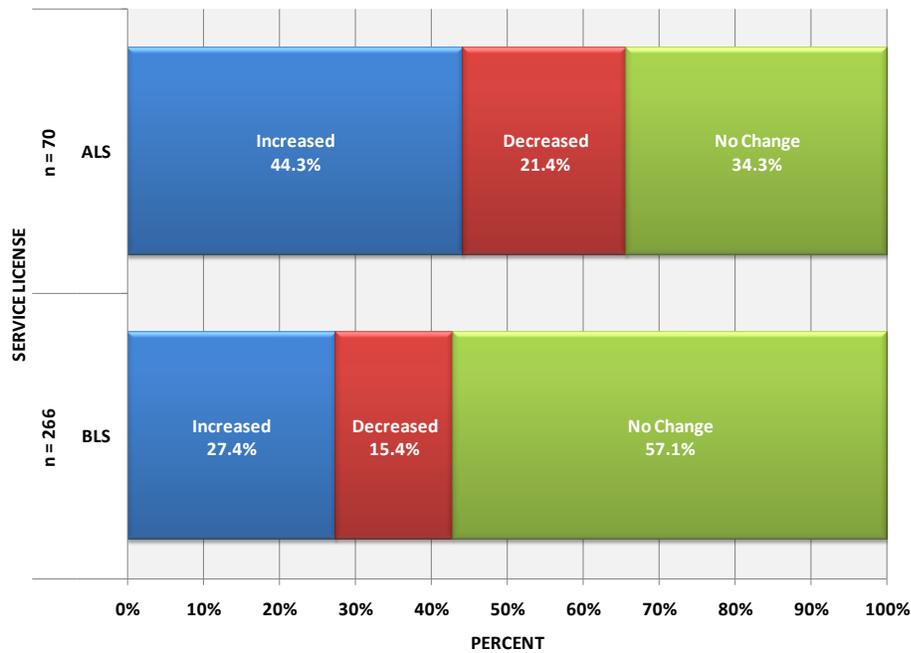
<sup>1</sup>52 missing records.

<sup>2</sup>263 missing records.

<sup>3</sup>143 missing records.

Some responding EMS services reported changes in their service’s call volume from 2004 to 2009, particularly ALS services, with 44.0% of services having experienced an increase in call volume (Figure 5). This increase in call volume for ALS services was more pronounced from 2008 to 2009, during which time 60% of these services experienced an increase in call volume (Figure 6). While some BLS services experienced an increase in call volume from 2008 to 2009, the majority experienced no change to their service’s call volume.

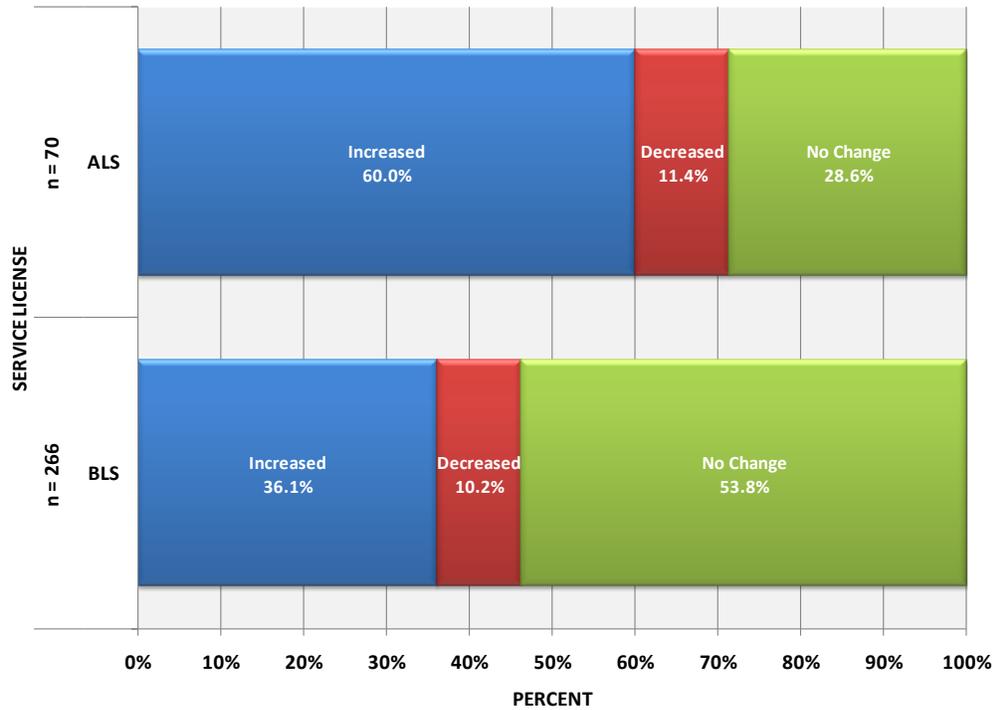
**Figure 5. Percentage of Responding EMS Services’ Change in Call Volume by Service Level, 2004-2009**



Source: Nebraska Department of Health and Human Services, Nebraska EMS & Trauma Program Workforce Survey, 2009.

Note: “BLS” includes transport and non-transport basic life support services; “ALS” includes transport and non-transport advanced life support services; 23 missing records.

**Figure 6. Percentage of Responding EMS Services' Change in Call Volume by Service Level, 2008-2009**



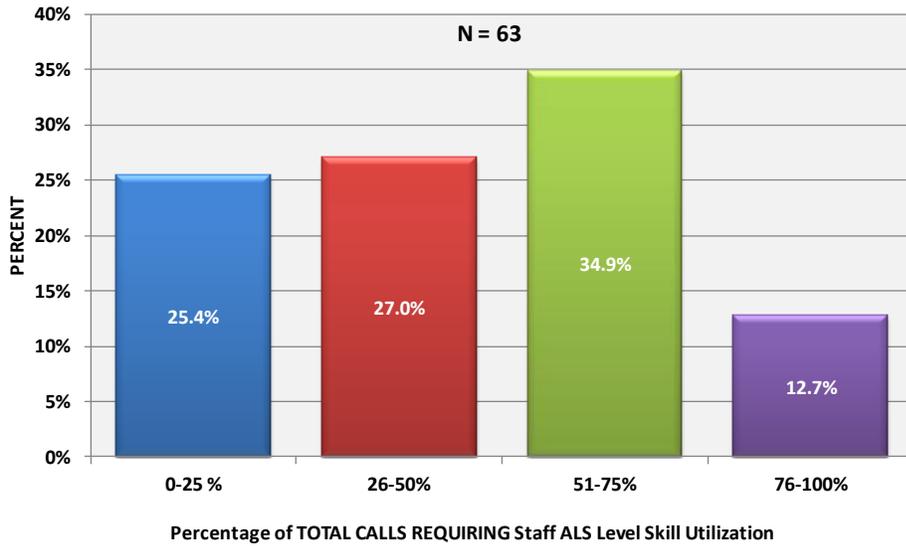
Source: Nebraska Department of Health and Human Services, Nebraska EMS & Trauma Program Workforce Survey, 2009.

Note: "BLS" includes transport and non-transport basic life support services; "ALS" includes transport and non-transport advanced life support services; 23 missing records.

## Transport Services

Of the responding ALS transport services, slightly over half (52.4%) reported that 50% or fewer of the total calls required their members to utilize their ALS-level skills. However, 34.9% of the responding ALS transport services reported that approximately 51% to 75% of their total calls required members to utilize their ALS-level skills, and 12.7% reported that the majority of their calls (76% to 100%) required their members to utilize their ALS-level skills (Figure 7).

**Figure 7. Percentage of ALS Transport Services' Calls that Require ALS Skill Utilization, Nebraska 2009**



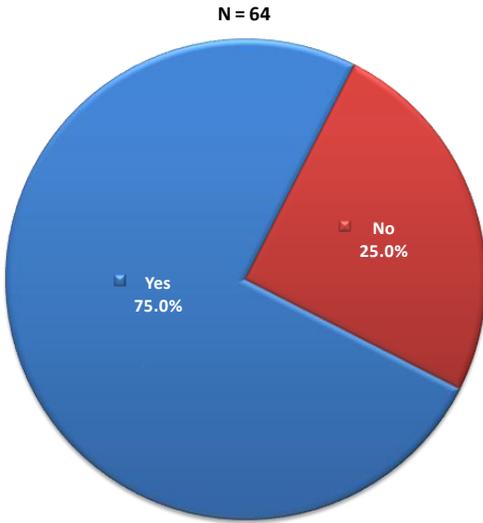
Source: Nebraska Department of Health and Human Services, Nebraska EMS & Trauma Program Workforce Survey, 2009.

Note: "ALS" includes transport advanced life support services; 8 missing records.

The majority (75.0%) of responding ALS transport services reported providing advanced level support to area BLS services as part of a formal or informal tiering agreement (Figure 8).

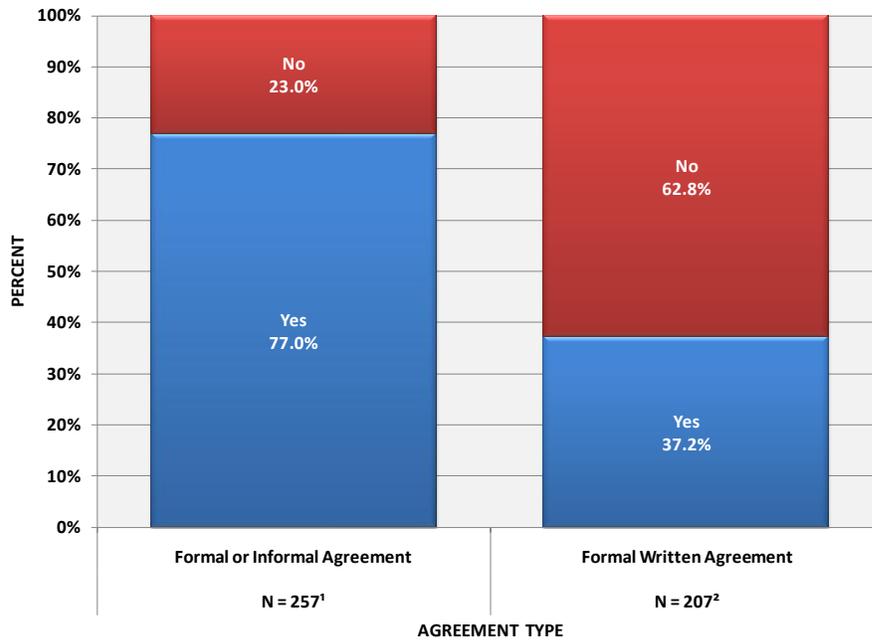
Of the responding BLS services, 77.0% reported receiving support from an ALS service as part of a formal or informal tiering agreement. However, only 37.2% of responding BLS services reported having a formal written agreement with an ALS service for advanced level support (Figure 9). Of the BLS services with ALS tiering agreements, either formal or informal, 58.9% receive both ground and air support (Figure 10).

**Figure 8. Percentage of ALS Services that Offer Support to BLS Services through Formal or Informal Tiering Agreements, Nebraska 2009**



Source: Nebraska Department of Health and Human Services, Nebraska EMS & Trauma Program Workforce Survey, 2009.  
 Note: "BLS" includes transport and non-transport basic life support services; "ALS" includes transport advanced life support services; 7 missing records.

**Figure 9. Percentage of Responding BLS Services by Tiering Agreement Type, Nebraska 2009**

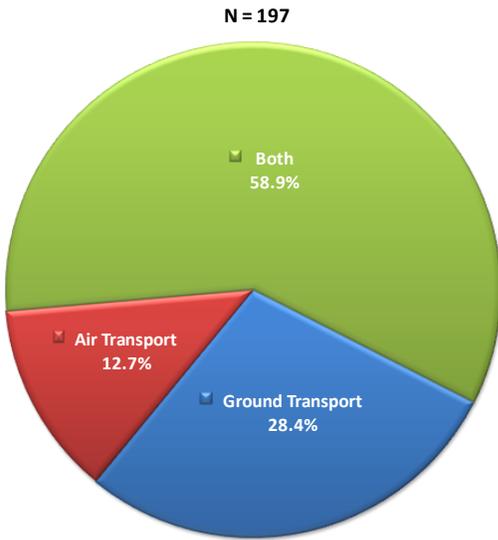


Source: Nebraska Department of Health and Human Services, Nebraska EMS & Trauma Program Workforce Survey, 2009.  
 Note: EMS services include transport and non-transport for both BLS and ALS services.

<sup>1</sup>27 missing records.

<sup>2</sup>77 missing records.

**Figure 10. Percentage of Types of ALS Support Received by Responding BLS Services, Nebraska 2009**

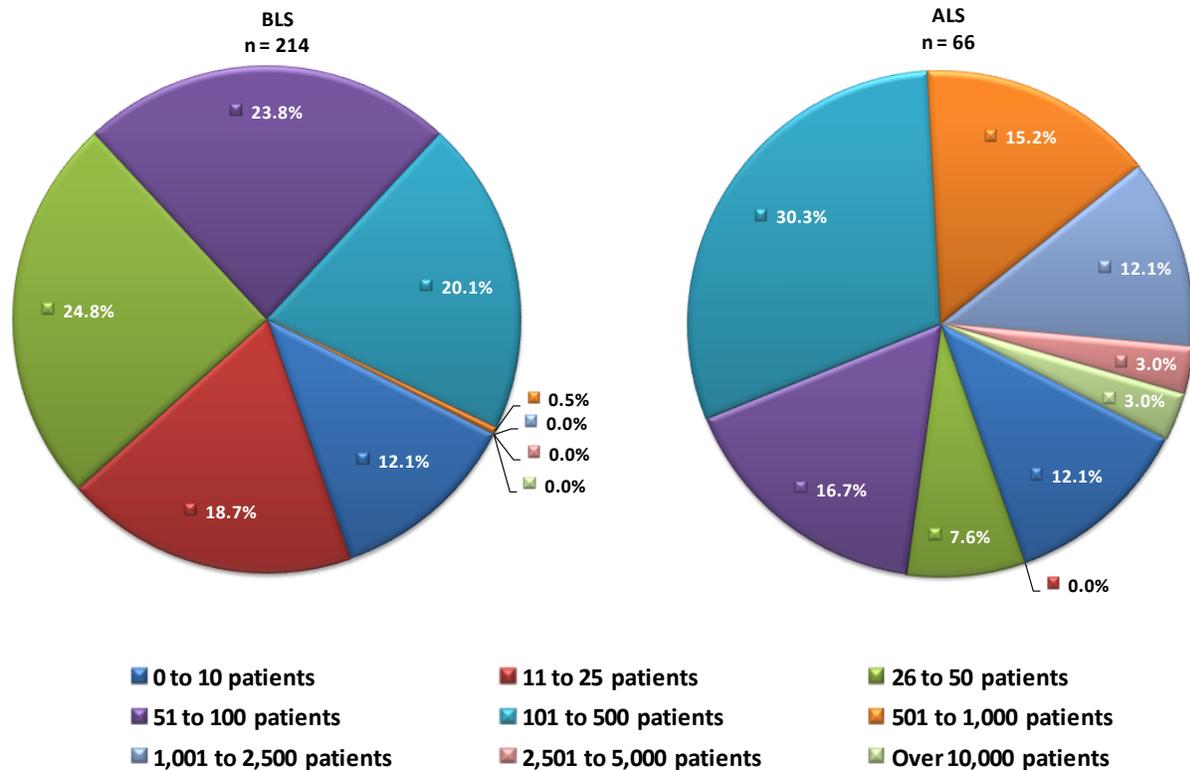


Source: Nebraska Department of Health and Human Services, Nebraska EMS & Trauma Program Workforce Survey, 2009.

Over half (55.6%) of the responding BLS services reported transporting no more than 50 patients from the scene of an emergency to a treatment facility in 2008. The greatest percentage (24.8%) of responding BLS services reported transporting approximately 26 to 50 patients from the scene of an emergency to a treatment facility in 2008, while only 0.5% reported transporting over 500 patients (Figure 11).

In contrast, the greatest percentage (30.3%) of responding ALS services reported transporting approximately 101 to 500 patients from the scene of an emergency to a treatment facility in 2008, while one-third of the responding ALS services reported transporting over 500 patients (Figure 11).

**Figure 11. Percentage of Responding EMS Services by Number of Patients Transported and Service Level, Nebraska 2008**



Source: Nebraska Department of Health and Human Services, Nebraska EMS & Trauma Program Workforce Survey, 2009.

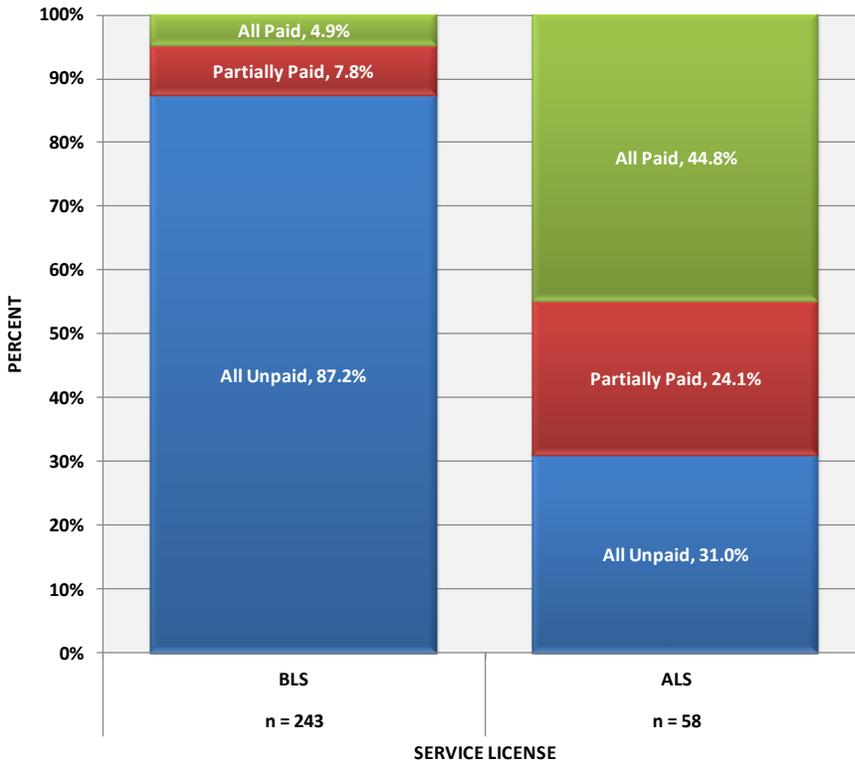
Note: “BLS” includes transport basic life support services; “ALS” includes transport advanced life support services; 79 missing records.

## Staffing

The majority (87.2%) of responding BLS services reported that the best description of their service’s annual payment status for licensed providers from 2008 to 2009 was “unpaid” (i.e., fully volunteer, receiving no financial reimbursement for services), followed by “partially paid” (i.e., volunteer or non-volunteer, receiving some sort of monetary reimbursement for each run or standby) (7.8%), and “fully paid” (i.e., non-volunteer, all personnel considered employees of the services) (4.9%) (Figure 12).

Compared to BLS services, a greater percentage of ALS services reported their annual payment status from 2008 to 2009 as “fully paid” (44.8% vs. 4.9% for BLS) or “partially paid” (24.1% vs. 7.8% for BLS). Furthermore, 31.0% of the responding ALS services described their payment status as “unpaid” from 2008 to 2009.

**Figure 12. Percentage of Responding EMS Services by Service Level and Staff Payment Status from 2008 to 2009**



Source: Nebraska Department of Health and Human Services, Nebraska EMS & Trauma Program Workforce Survey, 2009.  
 Note: “BLS” includes transport and non-transport basic life support services; “ALS” includes transport and non-transport advanced life support services; 58 missing records.

Responding EMS services were asked to indicate the current total number of licensed personnel on the service’s roster by annual payment status and gender. Personnel with more than one license were counted only once, at their highest level of certification. It is important to note however that due to missing data the reported personnel estimates should not be interpreted as the total numbers of EMS personnel in Nebraska. The personnel totals in this report are likely to underestimate the total number of EMS professionals currently licensed and actively practicing in Nebraska.

As shown in Appendix Table A1, EMS services reported a total of 6,309 licensed EMS professionals on their rosters at the time the survey was conducted. The majority of these professionals were male (70%). EMT – Basics (68.6%) represented the highest percentage of EMS professionals by certification level, followed by EMT – Paramedics (12.8%) and First Responders (10.9%). Over half of the EMS professionals (58.7%) were reported to have an unpaid annual payment status, while 31.9% were reported to be fully paid. However, these percentages vary by service level.

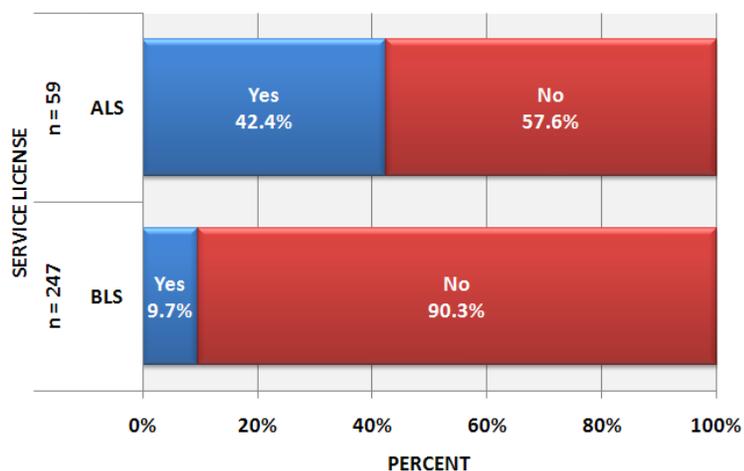
UNMC researchers were particularly interested in the personnel levels among services that received 300 or fewer calls per year because these services were believed to be more likely to

be smaller services that are dependent on a volunteer workforce. Of services that reported having 300 or fewer calls in 2008, a total of 3,275 licensed EMS professionals were reported to be on the service’s rosters at the time the survey was conducted (Appendix Table A2). These services were also asked to indicate the number of **active** personnel (i.e., those who participate in 25% or more of the calls per year) on their service’s roster. A total of 2,345 of the 3,275 personnel were reported be actively responding to their service’s calls, thus indicating that only a portion of the currently licensed EMS professionals are actively practicing within these services (Appendix Table A2).

As shown in Figure 13, 90.3% of the responding BLS services reported that their services did not have a prearranged call schedule to determine which personnel were to respond to 911 emergency calls over the course of 24 hours. Furthermore, 57.6% of the responding ALS services reported not having a prearranged call schedule for this purpose.

Of the 44 responding services that had a prearranged call schedule, 61.4% reported that their services average call shift lasted 24 hours or more, followed by 27.3% with an average call schedule lasting 9 to 23 hours, and 11.4% with an average call schedule lasting 8 hours or less (Figure 14). Many of the responding services that did not have a prearranged call schedule explained that all members are paged for each call and asked to respond if able; those who are able to respond to the call report to the scene or station. Mutual aid (i.e., support from other area EMS services) is often utilized during the day and/or when there are not enough EMTs able to respond to a call.

**Figure 13. Percentage of EMS Services with Prearranged 911 Emergency Response Call Schedules by Service Level, Nebraska 2009**



Source: Nebraska Department of Health and Human Services, Nebraska EMS & Trauma Program Workforce Survey, 2009.

Note: Call schedules are over a 24-hour period; “BLS” includes transport and non-transport basic life support services; “ALS” includes transport and non-transport advanced life support services; 53 missing records.

**Figure 14. Percentage of Responding EMS Services with Prearranged 911 Emergency Response Call Schedules by Scheduled Shift (in hours), Nebraska 2009**



Source: Nebraska Department of Health and Human Services, Nebraska EMS & Trauma Program Workforce Survey, 2009.

Note: EMS services include transport and non-transport for both basic and advanced life support services; 5 missing records.

Overall, less than half (44.8%) of the responding EMS services reported that they had an adequate number of active personnel to respond to calls from 6:01 a.m. to 6:00 p.m. This time frame was particularly problematic for services located in the Western EMS region, where only 30.4% of the responding services reported having an adequate number of active personnel to respond to calls from 6:01 a.m. to 6:00 p.m.. Other time frames were much less difficult to staff (Table 3).

Across all EMS regions, the majority of responding EMS services reported being unable to respond to a call in 2008 due to a staffing shortage (Figure 15).

**Table 3. Number and Percentage of EMS Services with Adequate Staffing to Respond to Calls by Region and Time Frame, Nebraska 2009**

Region	Time Frame					
	6:01 AM to 6:00 PM <sup>1</sup>		6:01 PM to Midnight <sup>2</sup>		Midnight to 6:00 AM <sup>3</sup>	
	n = 318		n = 316		n = 317	
	No.	%	No.	%	No.	%
<b>Nebraska</b>	<b>142</b>	<b>44.8</b>	<b>265</b>	<b>83.9</b>	<b>262</b>	<b>82.4</b>
Metro	20	71.4	24	92.3	23	85.2
North Central	19	39.6	38	76.0	38	76.0
Northeast	31	47.7	54	83.1	55	84.6
Panhandle	11	47.8	18	78.3	17	73.9
South Central	29	42.0	57	82.6	59	85.5
Southeast	25	41.0	56	93.3	53	86.9
Western	7	30.4	18	78.3	17	73.9

Source: Nebraska Department of Health and Human Services, Nebraska EMS & Trauma Program Workforce Survey, 2009.

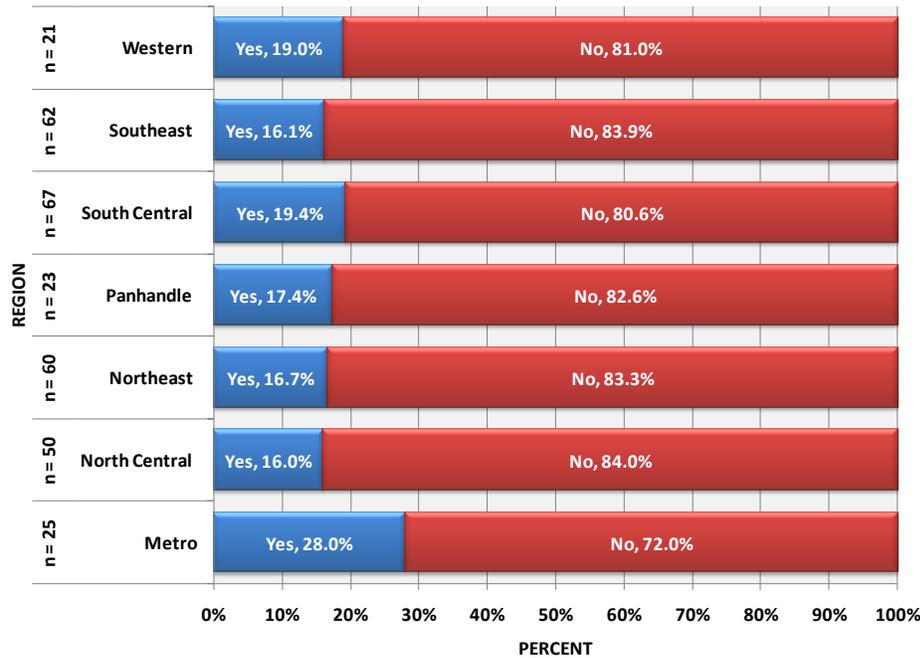
Note: EMS services include transport and non-transport for both basic and advanced life support services.

<sup>1</sup>42 missing records.

<sup>2</sup>43 missing records.

<sup>3</sup>41 missing records.

**Figure 15 Percentage of Responding EMS Services that were Unable to Respond to a Call Due to a Staffing Shortage, Nebraska 2008**

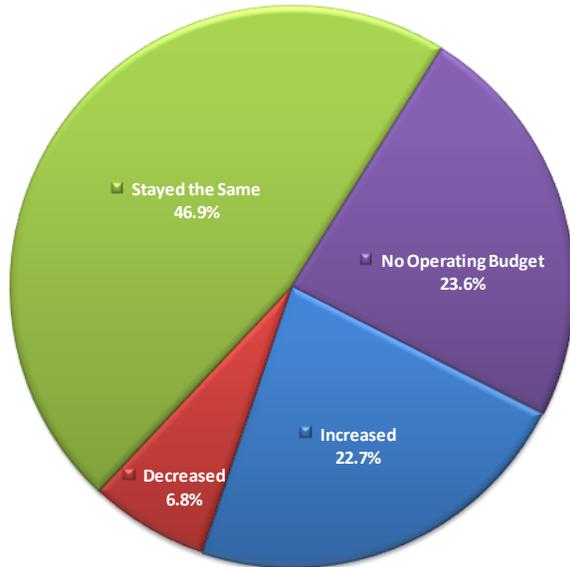


Source: Nebraska Department of Health and Human Services, Nebraska EMS & Trauma Program Workforce Survey, 2009.

Note: EMS services include transport and non-transport for both basic and advanced life support services; 51 missing records.

The greatest percentage (46.9%) of responding EMS reported that their service’s operating budget was the same in 2008 as in 2007, while 22.7% of responding services reported an increase in their operating budget in 2008. However, 23.6% of the responding services reported that their service did not use an operating budget (Figure 16).

**Figure 16. Responding EMS Services’ 2008 Operating Budget Compared to 2007 Operating Budget**  
N = 322



Source: Nebraska Department of Health and Human Services, Nebraska EMS & Trauma Program Workforce Survey, 2009.  
Note: EMS services include transport and non-transport for both basic and advanced life support services; 37 missing records.

## Recruitment and Retention

Among the responding EMS services, 962 EMS positions were reported to be unfilled/vacant; 146 of these vacancies were for paid positions, while the majority were for unpaid positions (Table 4). However, 73.1% of the responding EMS services reported that their service does not place a cap on the number of unpaid volunteer licensed positions accepted into their service (Figure 17). Therefore, the total number of unfilled/vacant positions may be positively skewed due to higher estimates of unfilled/vacant unpaid positions.

Responding EMS services were asked to explain what recruitment strategies their service used when seeking additional licensed professionals. Many EMS services rely on word-of-mouth to recruit new members. Other forms of recruitment such as advertising, visiting high schools, “open houses” at the service/station, and personal contacts are also commonly used. Incentives such as paying for EMT training are another common method. However, even with these methods, many responding EMS services reported having difficulty recruiting new EMS personnel.

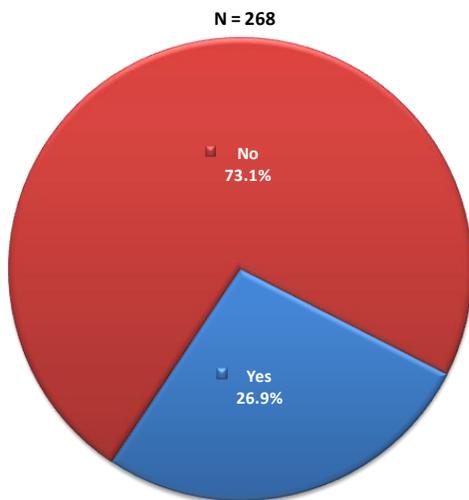
**Table 4. Number and Percentage of Reported Unfilled/Vacant EMS Positions by Region and Paid Status, Nebraska 2009**

Region	Paid		Unpaid <sup>1</sup>		Total	
	Number	Percentage	Number	Percentage	Number	Percentage
Metro	13	8.9	89	10.9	102	10.6
North Central	2	1.4	73	8.9	75	7.8
Northeast	30	20.5	184	22.5	214	22.2
Panhandle	42	28.8	74	9.1	116	12.1
South Central	9	6.2	123	15.1	132	13.7
Southeast	26	17.8	191	23.4	217	22.6
Western	24	16.4	82	10.0	106	11.0
<b>Total Unfilled/Vacant Positions</b>	<b>146</b>	<b>100.0</b>	<b>816</b>	<b>100.0</b>	<b>962</b>	<b>100.0</b>

Source: Nebraska Department of Health and Human Services, Nebraska EMS & Trauma Program Workforce Survey, 2009.

<sup>1</sup>The number and percentage of unfilled/vacant 'unpaid' positions should be interpreted as an estimate due to the nature of volunteer positions, which are often unlimited.

**Figure 17. Percentage of Responding EMS Services that Place a Cap on the Number of Unpaid Volunteers, Nebraska 2009**



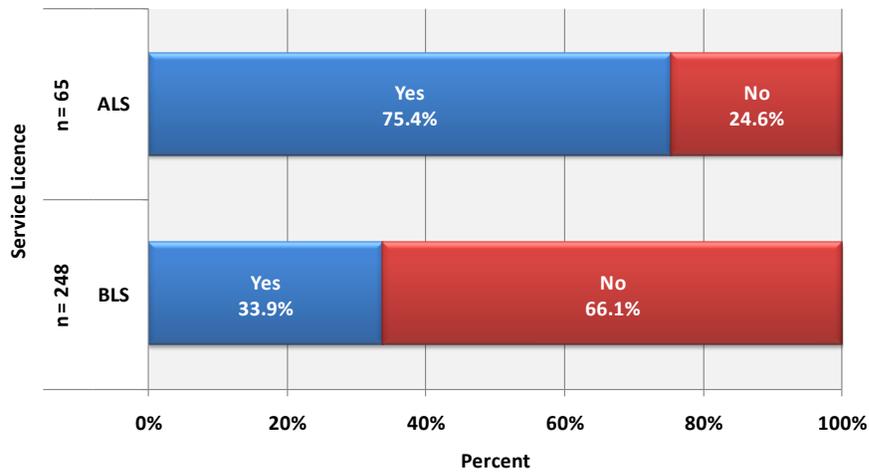
Source: Nebraska Department of Health and Human Services, Nebraska EMS & Trauma Program Workforce Survey, 2009.

Note: EMS services include transport and non-transport for both basic and advanced life support services; 91 missing records.

Three-quarters of the responding ALS services reported having a formal process/policy in place both to verify whether a potential candidate is currently licensed as a pre-hospital provider with the state of Nebraska (Figure 18) and to conduct a criminal background check of potential candidates (Figure 19).

In comparison, 33.9% of the responding BLS services reported having a formal process/policy in place to verify whether a potential candidate is currently licensed as a pre-hospital provider with the state of Nebraska (Figure 18), and 51.2% reported having a formal process/policy in place to conduct a criminal background check of potential candidates (Figure 19).

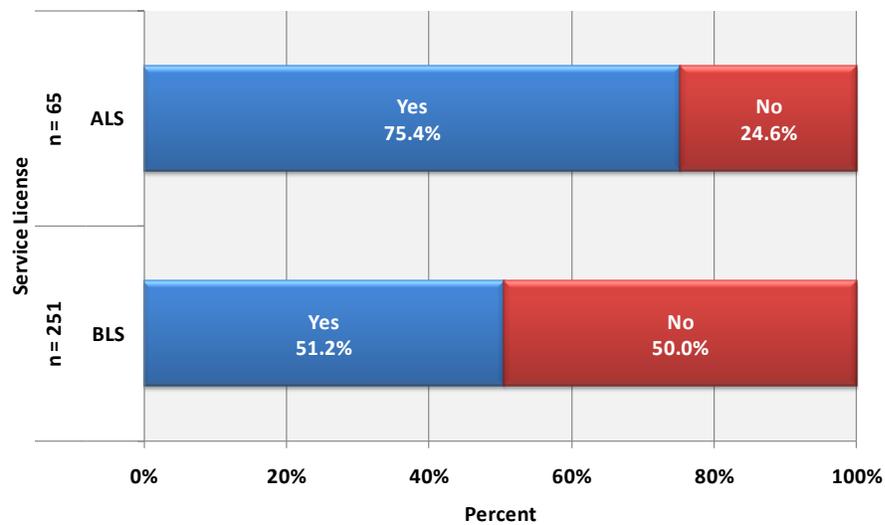
**Figure 18 Percentage of Responding EMS Services with a Formal Process or Policy in Place to Verify Pre-Hospital Provider Licensure Status by Service License, Nebraska 2009**



Source: Nebraska Department of Health and Human Services, Nebraska EMS & Trauma Program Workforce Survey, 2009.

Note: "BLS" includes transport and non-transport basic life support services; "ALS" includes transport and non-transport advanced life support services; 46 missing records.

**Figure 19. Percentage of Responding EMS Services with a Formal Process or Policy in Place to Perform a Criminal Background Check by Service License, Nebraska 2009**



Source: Nebraska Department of Health and Human Services, Nebraska EMS & Trauma Program Workforce Survey, 2009.

Note: "BLS" includes transport and non-transport basic life support services; "ALS" includes transport and non-transport advanced life support services; 43 missing records.

According to the responding EMS services, 722 EMS professionals resigned from their position from 2007 to 2009. Meanwhile, 1,593 EMS professionals were hired over this same time frame. Therefore, for every 1 EMS professional who resigned, 2.2 new EMS professionals were hired.

On average, responding EMS services reported that EMS professionals remained with their service for 12.4 years before resigning (ranging from zero to 50 years). Responding EMS services were asked to indicate the most common reasons given by resigning professionals. The most common reason given by those resigning, for both BLS and ALS services, was “moving” (46.7% overall), followed by “age” (40.6%), “family” (36.8%), “time” (32.2%), and “job (non-EMS)” (31.3%) (Table 5). However, these percentages vary by service level.

**Table 5. Percentage of Responding EMS Services Reporting “Yes” to the Most Common Reasons Given for Resigning by Service License, Nebraska 2009**

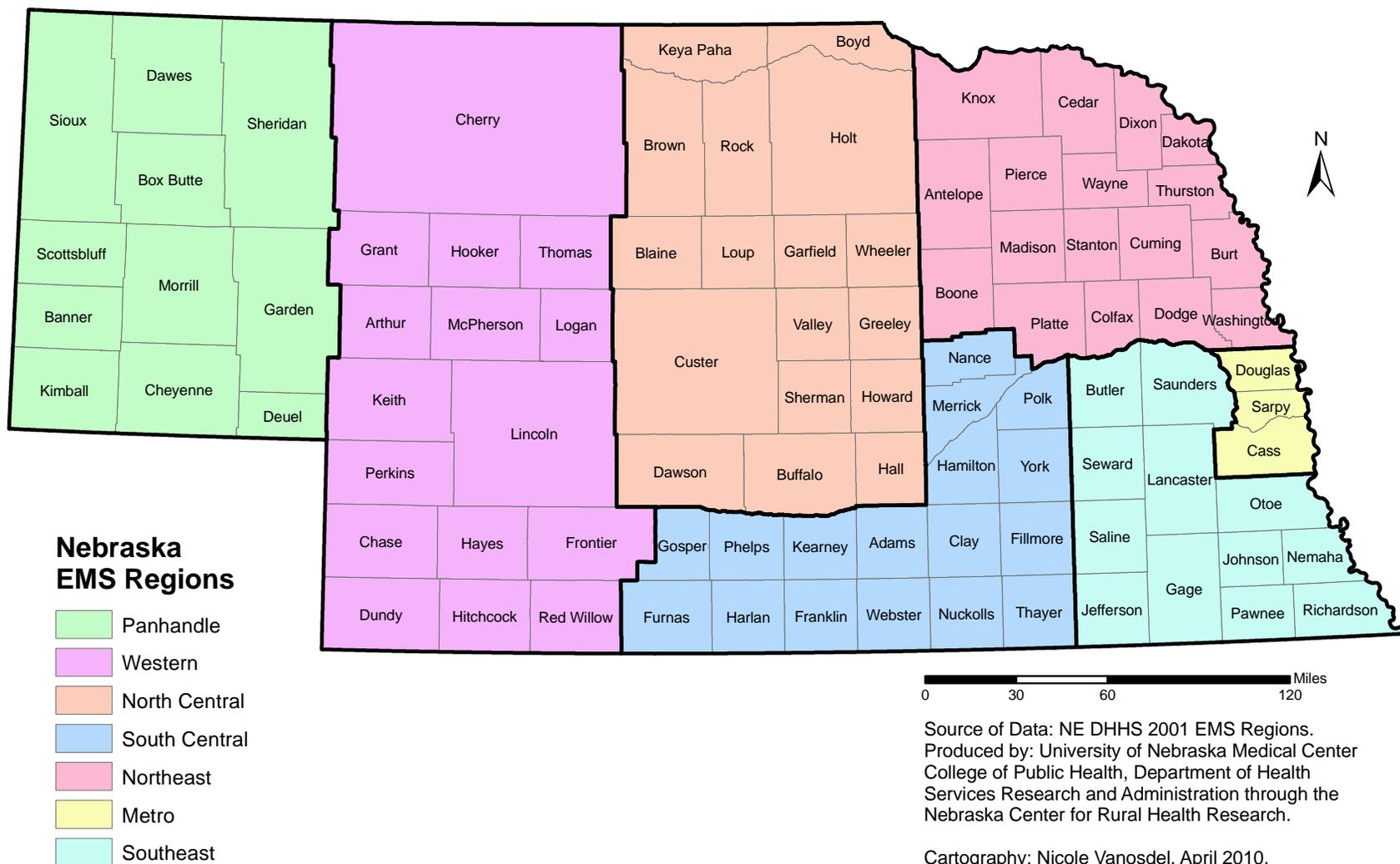
Reason for Resigning	BLS n = 258		ALS n = 65		Total n = 323	
	No.	%	No.	%	No.	%
Too Few Calls	-	-	1	1.5	1	0.3
Too Many Calls	6	2.3	1	1.5	7	2.2
Leadership	5	1.9	2	3.1	7	2.2
Inadequate/No Compensation	12	4.7	6	9.2	18	5.6
Length of Service	29	11.2	5	7.7	34	10.5
Retirement	64	24.8	16	24.6	80	24.8
Job (Non-EMS)	82	31.8	19	29.2	101	31.3
Time	83	32.2	21	32.3	104	32.2
Family	93	36.0	26	40.0	119	36.8
Age	114	44.2	17	26.2	131	40.6
Moving	122	47.3	29	44.6	151	46.7

Source: Nebraska Department of Health and Human Services, Nebraska EMS & Trauma Program Workforce Survey, 2009.

Note: “BLS” includes transport and non-transport basic life support services; “ALS” includes transport and non-transport advanced life support services; 46 missing records.

# Appendix

Figure 1: Nebraska EMS Regions



**Table A1. Number and Percentage of Reported Total Current Licensed EMS Personnel by Certification Level, Sex, and Annual Payment Status, Nebraska 2009**

	BLS		ALS		Total	
	No.	%	No.	%	No.	%
<b><i>Certification Level – EMS Providers</i></b>						
First Responder	649	17.4	40	1.6	689	10.9
EMT – Basic	2,805	75.2	1,524	59.1	4,329	68.6
EMT – Intermediate	44	1.2	87	3.4	131	2.1
EMT – Paramedic	47	1.3	761	29.5	808	12.8
<b><i>Certification Level – Other Providers</i></b>						
Licensed Practical Nurse (LPN)	49	1.3	20	0.8	69	1.1
Registered Nurse (RN)	115	3.1	124	4.8	239	3.8
Physician Assistant (PA)	2	0.1	2	0.1	4	0.1
Physician (MD)	19	0.5	21	0.8	40	0.6
<b><i>Annual Payment Status</i></b>						
Unpaid	3,054	81.9	649	25.2	3,703	58.7
Partially Paid	305	8.2	290	11.2	595	9.4
Fully Paid	371	9.9	1,640	63.6	2,011	31.9
<b><i>Sex</i></b>						
Male	2,468	66.2	1,946	75.5	4,414	70.0
Female	1,262	33.8	633	24.5	1,895	30.0
<b>Total Reported Currently Licensed EMS Personnel</b>	<b>3,730</b>	<b>100.0</b>	<b>2,579</b>	<b>100.0</b>	<b>6,309</b>	<b>100.0</b>

Source: Nebraska Department of Health and Human Services, Nebraska EMS & Trauma Program Workforce Survey, 2009.

**Table A2. Number and Percentage of Reported Total Current Licensed and Total Active Licensed EMS Personnel for Services that Receive 300 or Fewer Calls per Year by Certification Level, Sex, and Annual Payment Status, Nebraska 2009**

	Current Licensed EMS Personnel						Active <sup>1</sup> Licensed EMS Personnel					
	BLS		ALS		All License Types		BLS		ALS		All License Types	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
<b>Certification Level – EMS Providers</b>												
First Responder	352	14.4	20	5.3	372	13.2	273	11.1	13	3.5	286	10.1
EMT – Basic	2,102	85.7	362	96.8	2,464	87.2	1,620	66.1	207	55.3	1,827	64.6
EMT – Intermediate	9	0.4	11	2.9	20	0.7	8	0.3	9	2.4	17	0.6
EMT – Paramedic	39	1.6	150	40.1	189	6.7	24	1.0	60	16.0	84	3.0
<b>Certification Level – Other Providers</b>												
Licensed Practical Nurse (LPN)	37	1.5	4	1.1	41	1.5	27	1.1	3	0.8	30	1.1
Registered Nurse (RN)	104	4.2	55	14.7	159	5.6	49	2.0	40	10.7	89	3.1
Physician Assistant (PA)	2	0.1	2	0.5	4	0.1	-	-	2	0.5	2	0.1
Physician (MD)	14	0.6	12	3.2	26	0.9	5	0.2	5	1.3	10	0.4
<b>Annual Payment Status</b>												
Unpaid	2,230	90.9	254	67.9	2,484	87.9	1,706	69.6	191	51.1	1,897	67.1
Partially Paid	230	9.4	107	28.6	337	11.9	168	6.9	76	20.3	244	8.6
Fully Paid	199	8.1	255	68.2	454	16.1	132	5.4	72	19.3	204	7.2
<b>Sex</b>												
Male	1,659	67.7	288	77.0	1,947	68.9	1,254	51.1	222	59.4	1,476	52.2
Female	1,000	40.8	328	87.7	1,328	47.0	752	30.7	117	31.3	869	30.8
<b>Total Reported Personnel</b>	<b>2,659</b>	<b>81.2</b>	<b>616</b>	<b>18.8</b>	<b>3,275</b>	<b>100.0</b>	<b>2,006</b>	<b>85.5</b>	<b>339</b>	<b>14.5</b>	<b>2,345</b>	<b>100.0</b>

Source: Nebraska Department of Health and Human Services, Nebraska EMS & Trauma Program Workforce Survey, 2009.

<sup>1</sup> “Active” refers to personnel who participate in 25% or more of the calls per year; 79 missing records.

## References:

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<sup>1</sup> Chapman, S. et al.(2008) *EMS Workforce for the 21st Century: A National Assessment*. National Highway Traffic Safety Administration. Accessed on-line <http://www.hhs.state.ne.us/ems/EMSWorkforceforthe21stCentury.pdf>.

<sup>2</sup> Ullrich, F., Mueller, K., Shambaugh-Miller, M. (2004). *Emergency Medical Service Volunteer Personnel in Nebraska: Workforce of the Present, Hope for the Future?* (Project Report 04-24). The Nebraska Center for Rural Health Research.

<sup>3</sup> Mueller, K., Zhang, W., Lucas, W. (2001). *Current Issues and New Approaches: The EMS Survey in Nebraska* (Project Report 01-6). The Nebraska Center for Rural Health Research.

<sup>4</sup> Dillman, D. (2007) *Mail and Internet Surveys: The Tailored Design Method*. Hoboken, New Jersey: John Wiley & Sons, Inc.