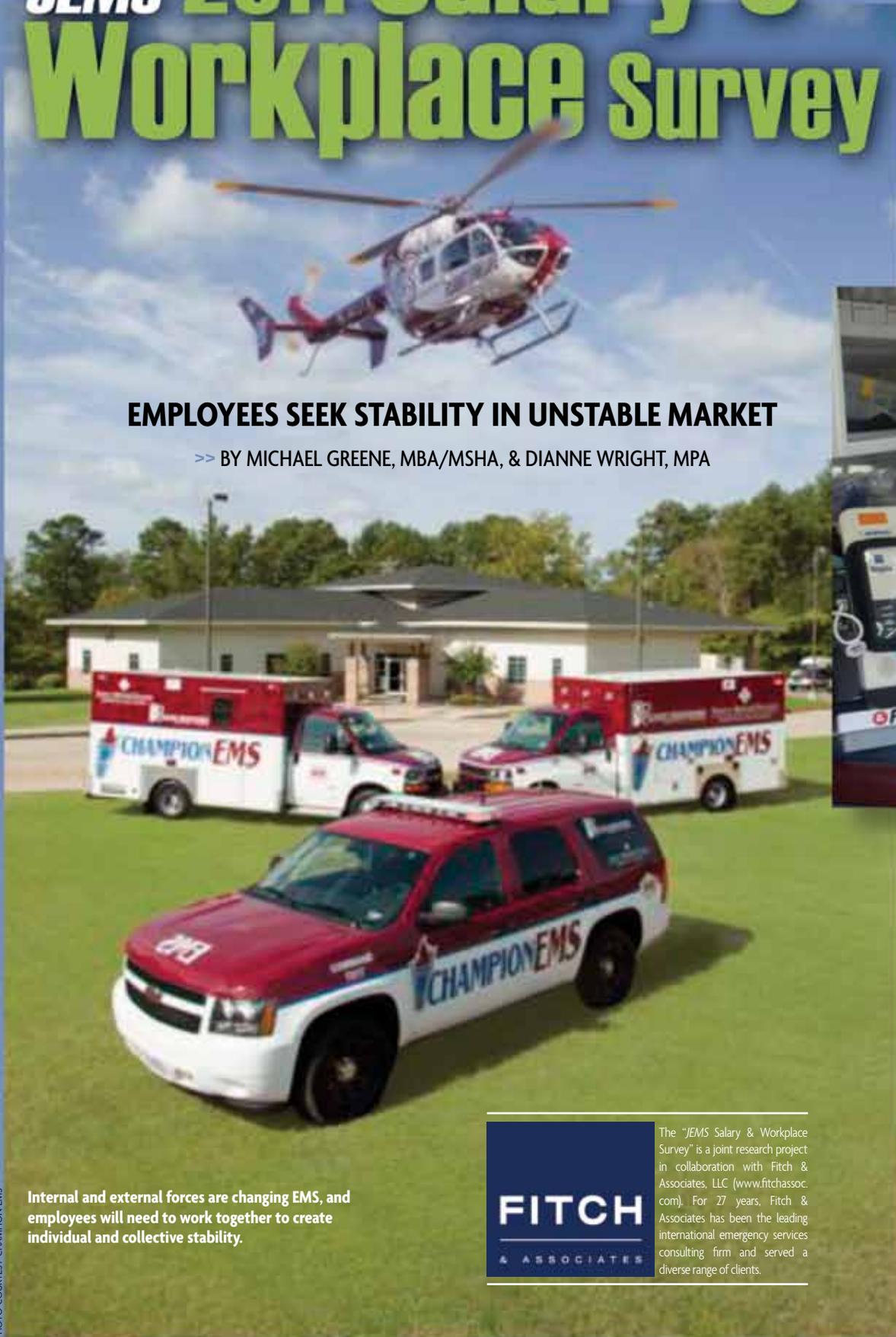


# JEMS 2011 Salary & Workplace Survey

## EMPLOYEES SEEK STABILITY IN UNSTABLE MARKET

>> BY MICHAEL GREENE, MBA/MSHA, & DIANNE WRIGHT, MPA



Internal and external forces are changing EMS, and employees will need to work together to create individual and collective stability.

**FITCH**  
& ASSOCIATES

The "JEMS Salary & Workplace Survey" is a joint research project in collaboration with Fitch & Associates, LLC ([www.fitchassoc.com](http://www.fitchassoc.com)). For 27 years, Fitch & Associates has been the leading international emergency services consulting firm and served a diverse range of clients.

## ►► ABOUT THE DATA

JEMS Salary & Workplace Survey invitations were e-mailed to 2,599 organizations. Two hundred eighty-one organizations (n=281) initiated the web-based survey, reflecting a return rate of 11%.

Figure 1 (p. 44) shows the breakdown of provider types and call volumes. Total respondents are noted as “n=” for each data set throughout the article. In some instances, data was limited, not available or not applicable for all respondents. This means “n” can change from data set to data set.

Through the survey invitations, efforts were made to ensure a representative sample of participation from provider organizations in each region of the U.S. and across all system model designs. Figure 2 (p. 44), displays this data in a map. All 10 federal regions are represented

in this year’s data, but four states were not represented in the returned surveys.

A significant change from the prior year’s report is that data is only reported where the number of responses within the selected data set is equal to or exceeds five. This methodology is in conformance with antitrust concerns and generally accepted safe harbor guidelines for U.S. salary surveys.

The figures and tables for 2011 note the number of respondents for each category or question, and when “n” is less than 5, the table indicates “N/A.” As a point of reference, salary tables include a “national average,” which comprises the data across all respondents. Accuracy is the primary focus, yet readers should understand that the survey is based on self-reported data and has limitations specifically related to sample size.

## ►► SHORT COURSE

The total number of respondents to each specific statement below is noted at the end of that statement as “n=.”

- > Gender distribution in EMS professionals remains similar to previous surveys, with approximately 70% (n=281) of the workforce being male except in dispatch, where communications specialists are 58% (n=53) female.
- > There were respondents from 46 states (n=281). Four states—Delaware, Nebraska, Montana and Oregon—had no respondents who completed the survey.
- > Of the agencies responding, 82% (n=159) are primarily responsible for paramedic and EMT continuing education expenses.
- > Of the organizations surveyed, 63% (n=147) state that their paramedics and EMTs receive adequate live patient encounters and actual skill exposures to remain proficient at performing clinical skills.
- > Life insurance is offered by 91% of respondents; 63% of employers pay for life insurance on behalf of their employees. n=153
- > Employee major medical insurance is provided by 95% of respondents; 92% pay either all or part of the cost of employee major medical insurance; only 3% report that employees bear the cost of major medical insurance themselves. n=153
- > Regarding insurance, 93% of agencies offer major medical for family members; 77% report that the employer makes some contribution to the cost. n=151
- > None of responding agencies report eliminating medical insurances, but nearly 20% (n=147) report reduced benefits for employee and/or family major medical insurance.
- > Of employer agencies that responded, 58% (n=147) make partial contributions to employee retirement/pension plans.
- > Regarding benefits, 41% (n=142) of agencies offer 401(k) plans with various combinations of funding; 23% (n=143) offer 403(b) plans and 35% (n=146) offer 457 plans.
- > Only 14% (n=152) of agencies use health coverage incentives or penalties to address employee health issues that may be tied to lifestyle.
- > In the past 12 months, 56% of agencies report a decrease in their operating budgets; 20% an increase and 24% no change. (n=153)



With an exaggerated groan, Duke Gracie climbs out of the driver’s side of a Flowing Springs EMS (FSEMS) ambulance, squinting into the bright sunlight and pulling his sunglasses down over his eyes. The groan was in response to his partner’s comment, “Give me trauma or give me sleep.” This was the third call they’d received since midnight during a 24-hour shift, and none of the calls involved trauma. As a shift supervisor and field-training officer (FTO) for Flowing Springs EMS, Duke is used to this type of comment from a “rookie” paramedic. In his 30 years on the street, Duke has seen it all and isn’t in a rush to run the “big one” with his trainee partner.

“I’ve got to figure this guy out before I cut him loose,” Duke thinks.

Across the parking lot, FSEMS General Manager Margaret Taylor sees Duke as she hurries toward the administrative office. “Duke, I hope that newbie is ready to be cleared from field

orientation. I need him for the new Diamond Lake contract, like, yesterday,” she says. “So let him go, you old dinosaur.”

“Always in a rush,” Duke comments to his former partner. “Good thing you aren’t in the wine-making business.”

Does this sound like a familiar dialogue? Let’s listen to what each person is really thinking during the exchange:

**Duke:** “I love working in the field. I’ve been a medic as long as I can remember. In this small community, patients are often my friends or extended family. But the long hours, sleepless nights and physical effort of the job is taking a toll, and I’m not sure I can keep up with the pace and train these youngsters. Isn’t there some other way I can use my skills and experience to help patients?”

**Maggie:** “The constant pressure to do more with less is aggravating. We’ve made it through another year’s budget crisis, and our relationship with the town and the mayor are solid. Duke and I grew up in this system, but he wants to stay on a truck forever. How can we

capture his knowledge and experience? Could this community paramedic concept have a future? Duke would be great at that job, but would the hospital see value in the program and be willing to fund it?

The JEMS Salary and Workplace Survey has been conducted in cooperation with Fitch & Associates LLC for 27 years. We'll provide a review of salaries and workplace practices for 2011 through the story of Flowing Springs Fork Emergency Medical Services, a fictitious "Any Town, U.S.A." ambulance service, along with Maggie, Duke and his trainee, Dave.

### WHAT DOES THE FUTURE HOLD?

A 2008 article in the *JEMS* suggested low reimbursement rates keep EMS pay low.<sup>1</sup> Although it may be too soon to see the effect of reimbursement changes on salaries, we know that funding at the federal level for Medicare payments fell below the average cost per transport in urban and super-rural areas in 2007.<sup>2</sup>

Add to this a new method of calculating the ambulance inflation factor (AIF) applied to Medicare fee schedules and the Patient Protection and Affordable Care Act of 2010 (PPACA), which will apply a productivity adjustment to the AIF and consumer price

index (CPI), and we see that doing more with less is the recurrent theme for EMS.

The necessary balance between fiscal austerity (reality) and optimal funding has created a clash between having adequate EMS staff to provide safe patient care and having sustainable EMS operations. The battle in some communities has already been lost. Headlines from Nashua, N.H., read "More

than 160 people who work for a local ambulance company will be looking for work in a few weeks," (Rockingham Regional Ambulance, which is run by St. Joseph Hospital in Nashua, was set to close its doors on Sept. 30.) And headlines in Mount Dora, Fla., tell a similar story, "Hundreds of Lake EMS employees told their company would dissolve on Oct. 1."<sup>3,4</sup>

Cities and towns continue their struggle with reduced property taxes and pension funding, and the struggle is affecting EMS. Even the minimal funding provided to volunteer EMS agencies is diminishing.<sup>5</sup> More than half (56%) of the 153 responding agencies report a decrease in the past 12 months' operating budgets, and nearly a fourth (24%) report no change. After factoring in inflation, this translates to 80% of agencies having to provide service with less funding. Unknown effects from pending healthcare reforms lurk in the future to add additional pressure on all EMS provider types.

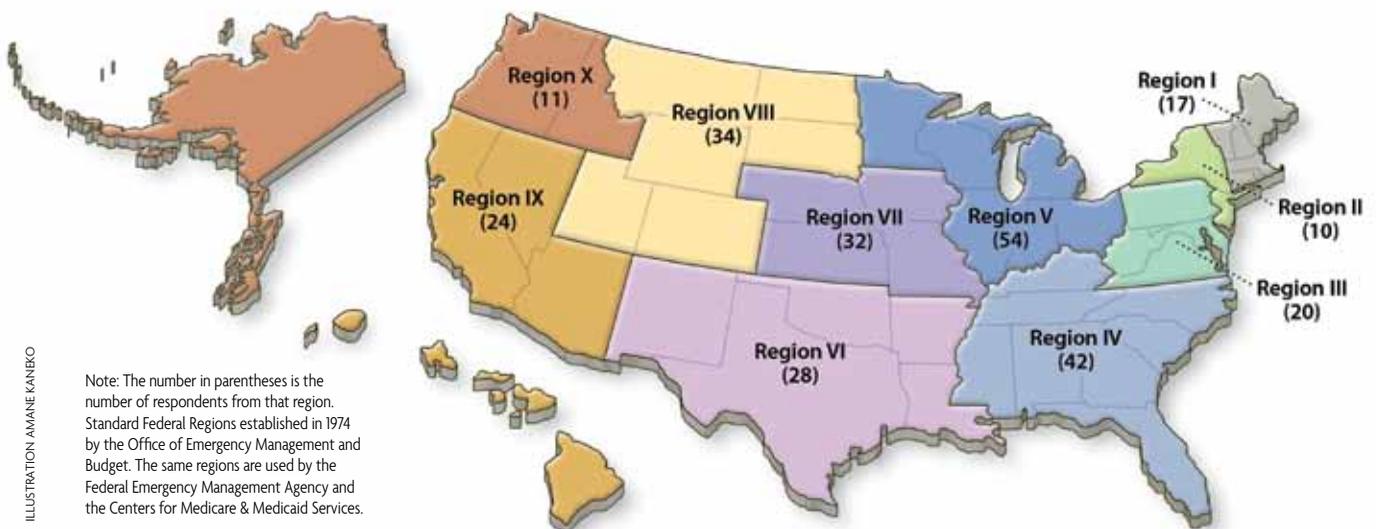
### VACANCIES, RECRUITMENT & HIRING

Maggie wonders why, with the current unemployment rate, she still can't seem to find enough paramedics. "It doesn't seem like we've had a bunch of employee separations, yet we seem to be continually hiring. And then, Duke just won't cut them lose fast enough," she thinks.

**Figure 1: Participant Distribution**

Survey Respondent Mix		n=253			
Survey Responses					
Regional Distribution		See Regional Map (Figure 2)			
Provider Model Distribution		n=253			
	%	NUM			
City/County third-service governmental	26.1	66			
Private, not-for-profit organization	14.2	36			
Hospital-based	11.5	29			
Private, for profit company	10.3	26			
Fire department, single-role	2.0	5			
Public utility model	1.6	4			
County-based first response ALS 9-1-1	0.4	1			
Law enforcement-based	0.4	1			
Non-profit, part owned by hospital	0.4	1			
Non-profit, political subdivision	0.4	1			
Other	0.0	0			
Total Population Served		n=253			
	%	NUM			
Less than 5,000	7.5	19			
5,001-10,000	6.7	17			
10,001-25,000	17.8	45			
25,001-50,000	17.4	44			
50,001-100,000	11.9	30			
100,001-250,000	16.6	42			
250,001-500,000	11.5	29			
500,001-1,000,000	7.1	18			
More than 1,000,000	3.6	9			
Call Requests vs. Transports		Responses (n=247)		Transports (n=246)	
	%	NUM	%	NUM	
Not Applicable	0.0	0	0.0	0	
Less than 1,000	15.0	37	23.2	57	
1,001-5,000	36.0	89	35.8	88	
5,001-15,000	19.8	49	22.0	54	
15,001-30,000	13.0	32	6.9	17	
30,001-50,000	5.3	13	5.7	14	
50,001 - 70,000	4.9	12	2.0	5	
70,001-90,000	1.6	4	1.6	4	
Greater than 90,000	4.5	11	2.8	7	

**Figure 2: Map of Responses by Federal Region**



**Figure 3: Salaries by Region**

		EMT	EMT-I	EMT-P	FTO	EMD	Educator	Quality Mgr.	Bill Clerk	Supply
National	n=	132	65	142	48	48	64	31	69	24
	Average	\$37,914	\$36,817	\$49,269	\$53,722	\$38,624	\$59,821	\$69,902	\$31,389	\$52,053
	10th	\$23,407	\$24,960	\$34,065	\$35,230	\$25,062	\$39,025	\$45,136	\$24,240	\$25,896
	25th	\$26,765	\$28,080	\$39,051	\$39,673	\$30,443	\$45,271	\$50,357	\$25,730	\$34,096
	50th	\$32,240	\$32,431	\$46,492	\$50,120	\$36,026	\$54,891	\$63,742	\$30,930	\$49,608
	75th	\$42,166	\$43,771	\$55,458	\$63,881	\$41,366	\$68,519	\$81,453	\$35,350	\$65,250
90th	\$63,232	\$52,606	\$65,922	\$ 81,432	\$49,213	\$91,832	\$102,406	\$39,541	\$69,701	
Region I	n=	9	4	9	3	2	1	1	4	0
	Average	\$33,843	N/A	\$49,325	N/A	N/A	N/A	N/A	N/A	N/A
	10th	\$27,115	N/A	\$44,096	N/A	N/A	N/A	N/A	N/A	N/A
	25th	\$29,120	N/A	\$47,840	N/A	N/A	N/A	N/A	N/A	N/A
	50th	\$32,243	N/A	\$48,293	N/A	N/A	N/A	N/A	N/A	N/A
	75th	\$37,440	N/A	\$52,166	N/A	N/A	N/A	N/A	N/A	N/A
90th	\$40,588	N/A	\$56,077	N/A	N/A	N/A	N/A	N/A	N/A	
Region II	n=	5	0	4	0	2	3	1	1	1
	Average	\$35,110	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	10th	\$31,053	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	25th	\$33,176	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	50th	\$37,440	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	75th	\$37,440	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
90th	\$37,690	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Region III	n=	12	2	12	4	7	6	4	7	3
	Average	\$34,303	N/A	\$44,029	N/A	\$30,704	\$53,570	N/A	\$30,781	N/A
	10th	\$26,282	N/A	\$40,450	N/A	\$24,577	\$36,566	N/A	\$22,684	N/A
	25th	\$27,610	N/A	\$44,292	N/A	\$24,960	\$39,915	N/A	\$24,773	N/A
	50th	\$31,213	N/A	\$45,838	N/A	\$26,832	\$48,610	N/A	\$31,200	N/A
	75th	\$39,025	N/A	\$50,888	N/A	\$35,776	\$54,668	N/A	\$35,495	N/A
90th	\$44,160	N/A	\$58,502	N/A	\$39,854	\$75,535	N/A	\$41,147	N/A	
Region IV	n=	20	14	25	6	10	11	3	14	5
	Average	\$35,188	\$34,328	\$43,622	\$49,116	\$35,662	\$52,768	N/A	\$31,357	\$35,452
	10th	\$25,466	\$27,630	\$32,599	\$37,245	\$28,672	\$39,520	N/A	\$28,829	\$28,496
	25th	\$26,994	\$28,945	\$36,841	\$38,558	\$30,054	\$45,198	N/A	\$29,650	\$33,800
	50th	\$31,662	\$32,731	\$40,019	\$42,888	\$36,010	\$51,480	N/A	\$30,514	\$34,195
	75th	\$38,425	\$36,362	\$49,920	\$59,293	\$39,156	\$61,994	N/A	\$32,448	\$40,040
90th	\$49,005	\$47,923	\$57,855	\$67,214	\$43,184	\$68,141	N/A	\$34,707	\$42,573	
Region V	n=	23	7	25	9	9	13	6	11	3
	Average	\$41,956	\$34,996	\$50,543	\$52,569	\$37,008	\$64,855	\$73,626	\$34,246	N/A
	10th	\$26,539	\$26,774	\$37,823	\$40,019	\$28,488	\$40,477	\$46,410	\$24,960	N/A
	25th	\$30,322	\$28,808	\$39,783	\$43,967	\$31,455	\$45,760	\$51,480	\$30,919	N/A
	50th	\$32,500	\$31,431	\$45,656	\$45,500	\$37,492	\$54,995	\$66,612	\$33,904	N/A
	75th	\$49,702	\$40,331	\$56,514	\$54,317	\$41,634	\$72,800	\$96,465	\$37,055	N/A
90th	\$68,673	\$47,361	\$75,508	\$ 76,252	\$45,004	\$108,753	\$107,855	\$38,875	N/A	
Region VI	n=	13	9	15	9	8	10	8	12	7
	Average	\$35,759	\$39,288	\$51,004	\$58,890	\$37,128	\$65,451	\$68,063	\$29,912	\$62,412
	10th	\$24,357	\$28,674	\$37,606	\$47,264	\$29,222	\$48,433	\$50,257	\$22,395	\$52,940
	25th	\$24,960	\$29,141	\$38,351	\$54,646	\$33,233	\$54,158	\$52,697	\$24,788	\$55,838
	50th	\$30,233	\$32,515	\$46,436	\$56,420	\$37,129	\$61,818	\$63,045	\$28,714	\$65,250
	75th	\$34,398	\$40,310	\$58,696	\$64,979	\$40,248	\$71,989	\$82,316	\$31,600	\$67,174
90th	\$54,863	\$53,752	\$67,445	\$73,662	\$43,847	\$88,568	\$ 89,111	\$38,792	\$71,186	
Region VII	n=	19	8	19	5	2	5	1	8	0
	Average	\$33,133	\$29,875	\$41,064	\$44,539	N/A	\$44,569	N/A	\$30,732	N/A
	10th	\$20,176	\$21,717	\$29,203	\$35,152	N/A	\$32,240	N/A	\$24,336	N/A
	25th	\$23,868	\$24,248	\$32,053	\$37,180	N/A	\$33,800	N/A	\$25,740	N/A
	50th	\$27,123	\$25,636	\$39,689	\$37,386	N/A	\$37,180	N/A	\$30,087	N/A
	75th	\$35,781	\$28,117	\$52,915	\$49,997	N/A	\$44,990	N/A	\$35,693	N/A
90th	\$57,980	\$40,385	\$61,929	\$58,599	N/A	\$63,402	N/A	\$37,995	N/A	
Region VIII	n=	16	15	19	7	4	6	1	7	1
	Average	\$35,695	\$35,765	\$50,360	\$64,044	N/A	\$57,875	N/A	\$30,707	N/A
	10th	\$20,904	\$24,586	\$33,987	\$40,989	N/A	\$50,118	N/A	\$24,336	N/A
	25th	\$24,518	\$27,466	\$40,667	\$47,782	N/A	\$52,000	N/A	\$26,520	N/A
	50th	\$28,506	\$31,200	\$47,515	\$53,514	N/A	\$53,612	N/A	\$31,200	N/A
	75th	\$40,441	\$39,660	\$55,015	\$83,564	N/A	\$62,877	N/A	\$34,434	N/A
90th	\$66,932	\$52,909	\$72,188	\$91,780	N/A	\$69,894	N/A	\$37,977	N/A	
Region IX	n=	9	1	7	4	2	5	4	2	3
	Average	\$51,383	N/A	\$64,195	N/A	N/A	\$86,550	N/A	N/A	N/A
	10th	\$27,744	N/A	\$51,478	N/A	N/A	\$ 65,532	N/A	N/A	N/A
	25th	\$32,448	N/A	\$54,629	N/A	N/A	\$68,890	N/A	N/A	N/A
	50th	\$53,315	N/A	\$63,700	N/A	N/A	\$ 78,008	N/A	N/A	N/A
	75th	\$63,232	N/A	\$68,940	N/A	N/A	\$104,000	N/A	N/A	N/A
90th	\$81,762	N/A	\$79,672	N/A	N/A	\$112,736	N/A	N/A	N/A	
Region X	n=	6	5	7	1	2	4	2	3	1
	Average	\$52,687	\$40,680	\$62,605	N/A	N/A	N/A	N/A	N/A	N/A
	10th	\$29,572	\$31,383	\$48,208	N/A	N/A	N/A	N/A	N/A	N/A
	25th	\$35,178	\$33,232	\$51,030	N/A	N/A	N/A	N/A	N/A	N/A
	50th	\$42,481	\$38,532	\$54,080	N/A	N/A	N/A	N/A	N/A	N/A
	75th	\$75,585	\$45,793	\$73,983	N/A	N/A	N/A	N/A	N/A	N/A
90th	\$86,006	\$51,733	\$87,396	N/A	N/A	N/A	N/A	N/A	N/A	

Note: Survey results for additional positions are available at [jems.com/2011-salary-survey](http://jems.com/2011-salary-survey)

Outside, Duke sighs as he ends his shift as FTO. “Maggie is sure pressuring me to clear paramedics. If she wants them on their own quicker, we’ve got to start hiring experienced medics,” he thinks.

Maggie and Duke are both correct on these points, according to our recent survey results. One hundred and fourteen agencies reported vacancies, totaling 569 full-time equivalents (FTEs)—an average of just under five vacancies per organization. We were surprised to find 10 agencies with vacancies over 20 FTEs and one reporting 95 openings. Separations are “unchanged” at 67% or “decreased” at 14%, with only 19% of agencies reporting an increase in employees leaving the organization. By region, the most reported vacancies are in Region 3 with the fewest vacancies reported in Region 7 (see Figure 2, p. 44).

The top-rated tools for recruitment included: “Your agency’s website” (25%), followed closely by “employee referrals” (24%) and farming talent from “local EMS programs” (21%). The usual newsprint (less than 2%), trade journals (5%) and mailing lists (8%) are still used, but this use is declining from year to year, according to the survey results. Not mentioned in the survey was the use of social media sites and tools, such as Facebook or LinkedIn, for recruitment purposes. These sites are becoming increasingly popular with EMS crews and can serve as a major recruitment tool.

“Hiring good people is the primary selection criteria; we can educate them on skills and knowledge” continues to be the driving hiring selection criteria for 64% of survey respondents. In contrast, 36% said that “EMS experience and credentials are the primary selection criteria” for hiring. Given the top recruiting methods, this finding isn’t surprising.

The good news is that of the key operational staff positions, communications specialist and EMT-Basic positions are readily filled more than 80% of the time. However, in regard to paramedics, 44% of survey respondents report that “There is a shortage of paramedics available to hire.”

Maggie’s remark about Duke’s age isn’t that far off, according to this year’s survey. He’s one of few paramedics over 50 years of age (4%). Organizations reported fewer than 12% of paramedics are age 41 and over. For communications specialists, 40% fall in the



**Figure 6: Existing Employee Benefits**

	Not Applicable		Paid by Employer		Paid by Employee		Partially Paid by Employer		Total
	n=	%	n=	%	n=	%	n=	%	n=
New Employee Relocation Expenses	93	61.6%	2	1.3%	51	33.8%	5	3.3%	151
Life Insurance	13	8.5%	96	62.7%	11	7.2%	33	21.6%	153
Line-of-Duty-Death Insurance	40	26.7%	94	62.7%	3	2.0%	13	8.7%	150
Major Medical (Employee)	7	4.6%	59	38.6%	4	2.6%	83	54.2%	153
Major Medical (Employee's Family)	10	6.6%	15	9.9%	24	15.9%	102	67.5%	151
Short-term Disability	24	15.7%	60	39.2%	43	28.1%	26	17.0%	153
Long-term Disability	25	16.6%	58	38.4%	43	28.5%	25	16.6%	151
Employee Assistance Program	36	23.8%	102	67.5%	4	2.6%	9	6.0%	151
Dental	12	7.9%	40	26.3%	23	15.1%	77	50.7%	152
Optical/Vision	24	16.0%	28	18.7%	30	20.0%	68	45.3%	150
Liability Insurance	28	18.8%	102	68.5%	12	8.1%	7	4.7%	149
EMS Tuition Reimbursement	23	15.1%	80	52.6%	5	3.3%	44	28.9%	152
College Tuition Reimbursement	52	35.1%	33	22.3%	24	16.2%	39	26.4%	148
Scholarship Fund for Employee's Children	129	87.2%	5	3.4%	12	8.1%	2	1.4%	148
Retirement or Pension Plan	30	20.4%	30	20.4%	2	1.4%	85	57.8%	147
401(k) Plan	84	59.2%	11	7.7%	14	9.9%	33	23.2%	142
403(b) Plan	110	76.9%	3	2.1%	14	9.8%	16	11.2%	143
457 Plan	95	65.1%	4	2.7%	26	17.8%	21	14.4%	146
Profit Sharing	141	95.3%	7	4.7%	0	0.0%	0	0.0%	148
Stock Purchase Program	143	97.9%	1	0.7%	2	1.4%	0	0.0%	146
Shift Differential Pay	114	77.6%	31	21.1%	0	0.0%	2	1.4%	147
Uniform Allowance	20	13.2%	115	75.7%	4	2.6%	13	8.6%	152
Health Club Membership Reimbursement	98	65.8%	19	12.8%	14	9.4%	18	12.1%	149
Paid Time Off (PTO) Combined Benefit Leave	40	26.3%	103	67.8%	1	0.7%	8	5.3%	152
Day-care Reimbursement	128	85.9%	0	0.0%	19	12.8%	2	1.3%	149
Dry-cleaning of Uniforms	104	69.3%	13	8.7%	24	16.0%	9	6.0%	150
Meal Service	122	82.4%	3	2.0%	18	12.2%	5	3.4%	148
Concierge Service	137	91.9%	1	0.7%	10	6.7%	1	0.7%	149

security. They feel some comfort because they provide an essential public service. Yet in communities all around them, pay and benefits are being cut even for police, fire and EMS.

Figures 3 and 4 (p. 45 and 46, respectively) display reported salary data from the sample for a multitude of core EMS positions. The data is stratified by call volume and geographic region. Salary data is presented in percentiles. Salaries between the 25th and the 75th are considered the market range based on the survey sample. All wages are adjusted to reflect a 40-hour workweek for comparison. See Figure 5 (p. 46) for instructions on calculating wages for comparison to alternative shift lengths.

Our seasoned shift supervisor, Duke, has carefully planned his financial life, but it heavily depends on maintaining his pay level and being able to work some amount of overtime or standby duty each month. He has twin daughters in college. From a strictly financial perspective, he's looking forward to their graduation next year. Any reduction in pay or hours could shake the foundation of his plan and possibly force him to work a few more years than he would like or take on a second job.

He worries the company's retirement plan may not be as sound as it could be and that future Medicare cuts could not only affect the company's financial stability, but his retirement as well. Duke downs another dose of antacid to settle his nervous stomach and allow him to focus on CEUs and that next call.

Of the 147 agencies that responded, 80% provide a retirement plan that's funded wholly or in part by the employer. Only two agencies answered that the retirement plan is funded wholly by the employee. The 401(k) is another form of retirement plan that, in general, shifts more of the burden of retirement savings to the worker. Of the 142 agencies that responded to the survey question about 401(k) plans, 59% reported that 401(k) plans aren't applicable to their agency.

Duke's partner, Dave, is a young man who doesn't think too much or, frankly, know much, about retirement plans and pension funds. He's on his parents' health insurance until his next birthday. So for now, he isn't concerned about health insurance issues. In the coming year, however, he will face a number of decisions because he will need to join the FSEMS medical insurance plan. He isn't too knowledgeable about what this will mean to his take-home pay, how much he'll need for the deductible amounts, and exactly what is or isn't covered on the plan. Will he need to change doctors? Is the FSEMS plan a good one?

Major medical insurance for employees is provided by 95% of survey respondents, and 92% indicate that the agency pays either all or part of the cost of insurance for the individual employee. The survey indicates that nearly 20% of agencies have reduced benefits in their insurance plans.

More important to Dave is that he wants to get married next year. His girlfriend doesn't currently have medical insurance, and he's looking forward to being able to include her on the FSEMS plan. He knows that Flowing Springs offers family medical insurance, but he has heard that the employee costs increased substantially this past year. He also wonders whether the plan covers maternity care for the day that he and

his new wife decide to have children. Dave decides to talk to his partner, Duke. "He's taught me more about EMS than I'll ever let on, and he's pretty together for an old guy," Dave thinks.

Duke tells Dave that he should be able to obtain family insurance through Flowing Springs. Of agencies responding to the survey, 93% indicate that major medical insurance is available for family members. Dave's questions about whether maternity costs are covered are valid because although major medical plans may cover maternity expenses, out-of-pocket costs may vary. Duke tells Dave he should confirm with the FSEMS benefit manager about out-of-pocket costs.

Figure 6 (above) displays a list of benefits commonly and not so commonly offered to employees and the frequency those benefits are offered at no cost or at a subsidized cost to an employee. Figure 7 (p. 48) displays a list of benefits that were reduced or cut in the past 12 months.

**FATIGUE**

After several hours of education on the computer and advising Dave on healthcare, life and the pursuit of happiness, Duke decides he needs a break. He heads out to the ambulance bay to hop on a company-provided treadmill. Exercise, maintaining a good diet

and avoiding tobacco are lifestyle choices he has made in favor of good health and longevity. As he punches in age for a custom workout on the treadmill, he pauses. "Fifty-two years old, and a picture of health," he says out loud to no one in particular. "Now if I could only get a good night's sleep..."

EMS personnel work a variety of shifts in the provision of 24/7 service. The nature of EMS duty often requires overnight shifts and sleep interruption. Nocturnal sleep disturbances, even with attempted daytime sleep recovery, create a disruption in the circadian rhythm. Sleep deprivation impairs the central nervous system and affects appetite, temperature regulation, memory and vigilance. It has been associated with unintentional incidents, such as motor vehicle collisions and occupational injuries.<sup>7-9</sup>

Fatigue caused by sleep deficit has been shown in numerous studies to have a deleterious effect on cognitive skills.<sup>10-11</sup> Duke knows that fatigue due to shift work has been linked with a 36% increase in "serious" medical errors. Additionally, he's read a recent study that tasks undertaken while fatigued are best completed by teams. Thus Duke's focus on teamwork with his partner is an important patient safety issue.

Fatigue is not only a patient safety issue, it's also a challenge in EMS worker health and wellness. Chronic disruption of the circadian rhythm may lead to sleep disorders, which have been linked to serious medical illnesses, including high blood pressure, myocardial infarction, congestive heart failure, stroke, obesity, psychiatric problems that include depression and other mood disorders, attention deficit disorder and mental impairment.<sup>12</sup>

Of 98 responses, just 32 agencies report a formal policy or plan for fatigue management, while the remaining agencies report none.

On average, employees are allowed to work

40 continuous hours with a maximum reported continuous shift of 96 hours, or four full days. Following the maximum allowable shift duration, employees are required a minimum of four hours off duty (n=2), average 13 hours with a maximum duration of 48 hours (n=2) before returning to work.

It seems Duke isn't the only EMS worker who lacks sleep, but what is FSEMS supposed to do about this? Maggie identified fatigue as the root cause of a "near-miss" recently involving one of her crew. After that incident, she researched the literature on alertness management.

She found volumes of research on the subject from the air transport industry and a fully prepared education module on alertness management from the National Aeronautics and Space Administration's Ames Research Center. Best of all, she found it online and the module is free.<sup>13</sup> She forwarded the material to her training coordinator for a presentation during next month's in-service education session with a note to include the content in all future new-field-employee orientation.

Unnervingly Maggie also discovered a new trend in "shift work sleep disorder"—a

pharmacological, pick-me-up pill. Recently advertised in numerous EMS, fire and law enforcement periodicals, Nuvigil (generic name armodafinil) has sparked concern by some EMS administrators and medical directors whether a pharmaceutical is the acceptable (or problematic) when used by personnel to improve on-the-job alertness. Maggie hopes that Duke's triple shot vanilla café latte will keep him awake while she researches this new approach to alertness management.

**FUTURE OPPORTUNITIES**

Speaking of the future, the concept of paramedics providing community health services isn't a new idea. However, healthcare reform unfolding may provide opportunities for EMS providers to expand care to meet specific needs through community paramedic programs. A community paramedic program is particularly well suited for rural areas with limited medical care availability. EMTs and paramedics can provide care for "emergencies, evaluation, triage, disease management, basic oral and mental health, as well as prevention."<sup>14</sup>

To provide this type of care, EMS providers will need to be open to learning new skills and implementing procedures that are different from the typical response mode. An added bonus of such a program is that this is an area where injured, older or expanded-practice medics could continue hands-on care.

**CONCLUSION**

It might seem like the fictional Margaret Taylor and Duke Gracie are in disagreement about a lot of things, but they really aren't. Duke needs an organization that's on stable and sustainable financial footing to provide him with the literal and figurative vehicle for patient care. Maggie needs employees like Duke, ones whose heads, hands and hearts provide the care and compassion that makes EMS an honorable profession.

**Figure 7: Employee Benefits Reduced or Cut in Past 12 Months**

	Reduced		Eliminated		Total n=
	n=	%	n=	%	
New Employee Relocation Expenses	2	1.4%	2	1.4%	142
Life Insurance	3	2.1%	0	0.0%	146
Line-of-Duty-Death Insurance	0	0.0%	1	0.7%	145
Major Medical (Employee)	29	19.7%	0	0.0%	147
Major Medical (Employee's Family)	28	19.0%	0	0.0%	147
Short-term Disability	1	0.7%	1	0.7%	144
Long-term Disability	2	1.4%	0	0.0%	145
Employee Assistance Program	0	0.0%	1	0.7%	145
Dental	11	7.5%	0	0.0%	146
Optical/Vision	10	6.8%	1	0.7%	147
Liability Insurance	1	0.7%	0	0.0%	146
EMS Tuition Reimbursement	10	6.8%	2	1.4%	147
College Tuition Reimbursement	3	2.1%	5	3.4%	145
Scholarship Fund for Employee's Children	0	0.0%	0	0.0%	146
Retirement or Pension Plan	4	2.7%	1	0.7%	147
401(k) Plan	1	0.7%	1	0.7%	144
403(b) Plan	0	0.0%	1	0.7%	142
457 Plan	0	0.0%	1	0.7%	143
Profit Sharing	0	0.0%	0	0.0%	142
Stock Purchase Program	0	0.0%	0	0.0%	141
Shift Differential Pay	0	0.0%	0	0.0%	144
Uniform Allowance	6	4.1%	0	0.0%	145
Health Club Membership Reimbursement	1	0.7%	0	0.0%	145
Paid Time Off (PTO) Combined Benefit Leave	4	2.7%	1	0.7%	147
Day-care Reimbursement	0	0.0%	0	0.0%	143
Dry-cleaning of Uniforms	0	0.0%	0	0.0%	144
Meal Service	0	0.0%	0	0.0%	142
Concierge Service	0	0.0%	0	0.0%	143

# TAKE-HOME POINTS: 2011

It's imperative that EMS leadership quantifies and communicates to elected and regulatory officials, the relationship between worker pay, reimbursement and EMS as an essential, lifesaving public service. The creation of one voice for EMS, regardless of organization structure (public, private or non-profit), is essential.

One such organization is Advocates for Emergency Medical Services, a coalition of major EMS organizations and a virtual who's who of EMS organizations, including the American Ambulance Association, National Registry of EMTs and American College of Emergency Physicians ([www.advocatesforems.org](http://www.advocatesforems.org)). Does your agency participate in activities to raise awareness of EMS?

EMS agencies will need to demonstrate productivity and integration within the Accountable Care Organization (ACO) Model in the Patient Protection and Affordable Care Act of 2010. The community paramedic program may provide a vehicle to support these goals and at the same time provide expanded practice for paramedics. Can such a program create value

for the ACOs and patients, thereby achieving reimbursement?

It's important that EMS managers make decisions about pay and benefits, and that they clearly understand their employees' diverse needs and personal goals. EMS workers are acutely aware that many people do not have health insurance. Continued affordable, comprehensive healthcare plans are likely to be as important to EMS workers as their actual rate of pay. Have you asked your EMS personnel about their priorities?

EMS worker well-being goes beyond healthcare plans, which, for the most part, provide benefits after illness. A truly comprehensive wellness plan supports illness prevention and promotes health. Does your plan address and promote wellness?

Alertness management and fatigue prevention should be a top health and safety priority for EMS. Develop a comprehensive alertness management plan for your organization starting with staff education on alertness, fatigue and sleep hygiene.

Collaboration and synergy, like in cardiac and stroke response between field agencies and healthcare facilities, will bear EMS through the current and future white waters of an uncertain economy and changing healthcare landscape. And the fictional newbie, Dave, needs to feel confident that the organization can weather the coming healthcare changes, provide him with mentors and offer career opportunities to serve patients, as well as provide for his future family. **JEMS**

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