Interjurisdictional Variance in US Workers' Benefits for Emergency Response Volunteers

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Recent major events involving volunteer response include hurricanes Harvey, Irma, Maria, and Nate; Pacific Northwest wildfires; and dozens of tornado outbreaks and floods. As the global surface temperatures continue to rise, the intensity and frequency of natural disasters is anticipated to increase. In addition to devastating physical and emotional consequences, disasters have tremendous economic corollaries. Estimated costs associated with Hurricane Katrina exceed $250 billion, with uninsured losses projected at $215 billion. Services provided by volunteers in disaster response reduce economic burdens. For example, although the value of volunteer activity can be difficult to quantify, the American Red Cross (ARC) approximates that its volunteers annually provide $6 billion in services worldwide.

Integration of disaster response volunteers into the public health, health care, and emergency management systems is vital for national health security; however, barriers exist. A survey of Medical Reserve Corps (MRC) unit leaders reveals that nearly one third are concerned that legal issues affect their ability to recruit volunteers, and one fourth indicate that legal concerns impede volunteer response. Some of the legal barriers that volunteers face are liability, scope of practice, and licensure issues. In addition, the volunteer workforce is incredibly diverse. For example, the MRC is composed of more than 200,000 volunteers across the United States and its territories. Approximately 60% are health care professionals, and 40% are from a variety of nonclinical backgrounds. Although this multiplicity allows MRC volunteers to participate in a wide range of emergency activities, it creates dissonance across the network because of variance in knowledge bases and skill sets.

To address some of these concerns, federal directives call for the standardization of disaster preparedness education. A working group assembled by the American Medical Association established Competencies for Disaster Medicine and Public Health, setting forth a baseline for knowledge and skills. Competency 10 requires volunteers to demonstrate understanding of legal principles implicated in disaster preparedness and response. Identifying legal issues and accessing laws relevant to disaster preparedness and response is a challenging endeavor, even for trained legal scholars. Although many laws are openly available on the Internet, it is difficult to identify those laws that are particularly relevant to volunteer activities. The Emergency Law Inventory (ELI; https://legal-inventory.pitt.edu) is a publicly available informatics tool developed at the University of Pittsburgh Graduate School of Public Health (Pitt Public Health). ELI identifies, catalogs, filters, and summarizes more than 1300 statutory and regulatory provisions (collectively "laws") that affect volunteer activities when preparing for or responding to disasters. We describe the development of ELI and how it was used to examine laws that protect volunteers’ employment benefits. Research reveals that employment benefits are not standardized across the states and that some laws act as barriers to volunteer participation in disaster response.

THE DEVELOPMENT OF EMERGENCY LAW INVENTORY

ELI is an adaption of the Emergency Law Database (ELDB) previously developed at Pitt Public Health’s Preparedness and Emergency Response

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Research Center, under the Public Health Adaptive Systems Studies project. The ELDB contains more than 5900 laws directing public health system agents to work collaboratively for emergency purposes. We received written survey responses from 98 field testers of the ELDB. Eighty-nine percent of the respondents reported that legal databases are useful for a variety of emergency purposes, including education and training and the clarification of legal responsibilities. Several commentateurs noted that the configuration of the ELDB searching capabilities needed streamlining and the interface made more user friendly. The ELI project team used these evaluations and other lessons learned during the Systems Studies project to develop and refine ELI.

Phase I: Convening a Partnership

An innovative academic–public practice–private partnership was established between Pitt Public Health; MRC units headquartered in local health departments in Allegheny County, Pennsylvania, rural eastern Ohio, and New York City; and MAYA Design (a Web site developer). Pitt Public Health had a strong prior relationship with each health department that housed the MRC units that included cooperative projects, workforce trainings, experiential learning opportunities, ELDB field testing, and research collaborations. MAYA’s scientific expertise and state-of-the-art resources were critical for streamlining the coding methodology and designing an intuitive, user-friendly interface.

Academic–public health practice partnerships can significantly contribute to a well-functioning public health system, including improving emergency preparedness capabilities. The addition of a private sector partner can augment resources and enhance expertise; however, such collaborators are not always successful. Lack of time, funding, and interest among health department employees are cited as impediments to success.

Internally, Pitt Public Health assembled a multidisciplinary team including an attorney, two JD/MPH students, and one law student (collectively “legal team”), as well as two program evaluators (the evaluation team), a project coordinator, and a graphic designer. The project benefited from the institutional knowledge, historical perspective, and continuity of two team members involved in the development of both the ELDB and ELI.

The evaluation team distributed a self-assessment survey to the partnership via Qualtrics during Project months 6, 12, and 20. We included questions about leadership, management, critical characteristics of the process, individual empowerment, bridging social ties, synergy, and collaborative problem solving. The collaboration showed high levels of functioning for leadership, management, and critical characteristics of the process, synergy, and collaborative problem-solving. We ranked individual empowerment lower than the other key constructs. Bridging social ties scored well, with the exception that the partners did not start new ventures together. This may have resulted from their historic relationships.

Phase II: Establishing Parameters

We gathered qualitative data through volunteer interviews conducted by Pitt Public Health, MAYA, and the MRC partners. More than 80 volunteers were asked open-ended questions. Affinity clustering methods exposed legal themes, jurisdictional scope, and volunteer profiles. We identified four legal topics as impactful to volunteer engagement: liability, scope of practice, license reciprocity, and workers’ benefits. Volunteer feedback indicated that the jurisdictional scope of ELI should reflect workforce deployment locations; therefore, ELI includes laws in 60 jurisdictions: 50 states, Washington, DC; federal law; and 8 US territories. We identified 12 distinct roles and two global categories as most prominent in disaster response: dentist, emergency medical services (EMS), firefighter, governmental public health, law enforcement, mental or behavioral health professional, student or minor, nurse, pharmacist, physician, social worker, veterinarian, other medical professional (such as a podiatrist, physical therapist, and physician assistant), and other volunteer.

Phase III: Developing Legal Methods

Quantitative data gathered in Phase II informed qualitative legal methods in phase III. The coding methods that were used are similar to the mapping methodology described by Anderson, et al. Both approaches blend empirical and legal research methods resulting in greater transparency, replicability, and objectivity than traditional legal research. Because of the breadth of the study’s jurisdictional parameters and difficulty in accessing local ordinances, we limited searches to federal, state, and territorial law.

Robust legal methods ensured comprehensiveness. The principle investigator held an initial four-hour training session for the legal team. The legal team conducted weekly meetings to ensure coding consistency. Exclusion and inclusion criteria established relevancy. We discussed questionable provisions and, when necessary, revised the relevance criteria.

We performed initial research using LexisNexis, a subscription legal database. Searches originated by examining the table of contents for the statutory, then regulatory, provisions in each distinct jurisdiction. As described in Box 1, we selected titles and chapters with keywords then individually examined them for relevance.

We then performed broader searches, consisting of a combination of Boolean operators and keywords, to uncover laws housed in less obvious titles and chapters. More than 2000 laws were individually screened for relevance. We deemed approximately 1300 laws significant and coded them using a streamlined Google form customized by Pitt Public Health and MAYA. Because some laws contain more than one legal topic, the number of summaries approaches 1600. Coded sections include jurisdiction; role; citation; legal topic; triggering condition (whether a law was generally applicable only following an emergency declaration); summary title (a short description of the coded provision); and, summary text (a description of the law using common words). MAYA imported the legal data from the Google form into the ELI interface.

We performed multiple levels of intercoder quality assessments. A reviewer without a legal
background provided weekly feedback on legal summaries’ readability, consistency, and comprehensibility. The legal team cross-checked 2.5% of the laws in three coded sections that were selected because of their subjectivity: role, legal topic, and triggering condition. We noted and discussed inconsistencies. We totaled the data and reviewed them from all quality assessment iterations. Coding became more consistent over time. For laws 1–500, the legal team attained a 73.53% consistency rate. For laws 501–1000, the consistency rate was 92.11%. We did not perform a consistency check for the remaining laws because of the high percentage of agreement.

Phase IV: Beta-Testing Emergency law inventory

A series of formal gatherings yielded qualitative data used to refine ELI and address training requirements. Pitt Public Health created and facilitated a guided exercise, “Test Drive ELI,” to cultivate stakeholder relationships and elicit end user feedback. Seventy-six individuals participated in the Test Drive ELI exercise at the 2016 National Healthcare Coalition Conference, the 2017 National Association of County and City Health Officials Preparedness Summit, three distance-accessible meetings, and an in-person meeting. Because the discussants reported that the ELI interface was intuitive, short educational modules replaced detailed training guides.

Regardless of declaration status. On each state landing page, we selected the Workers’ Benefits tab, we individually examined all workers’ benefit laws, and we deemed 291 laws relevant and analyzed.

RESULTS PERTAINING TO COMPREHENSIVE BENEFITS

Interejurisdictional comparisons reveal that the most generous leave policies for volunteers ensure that pay, seniority, vacation time, sick time, and overtime privileges are not compromised during deployment (collectively “comprehensive benefits”). As shown in Table 1, 26 jurisdictions (study states), or 45% of the 60 jurisdictions, provide comprehensive benefits.

Employment Status Limitations

Twenty-five jurisdictions limit the provision of comprehensive benefits to state and municipal employees who are registered with the ARC, an executive branch agency, or a federally chartered nongovernmental agency. Exceptions are made for volunteer fire fighters (Connecticut, Delaware, Iowa, and Tennessee), EMS personnel (Connecticut and Iowa), members of canine and rescue teams (Connecticut), and members of the Air Force Auxiliary (Oklahoma). Colorado does not have any express registration requirements.

Twenty-two study states (81.48%) require employer approval before deployment. In Tennessee, a volunteer fire fighter’s employer can request a written statement from the fire chief to verify volunteer service.

Geographic Limitations

Volunteers in Iowa, Nebraska, Oklahoma, Oregon, Rhode Island, and Vermont receive comprehensive benefits only when deployed interjurisdictionally. Volunteers in Georgia and Idaho, receive benefits when volunteering in their home state or a contiguous one. North Carolina limits benefits to volunteers deployed within the United States.

Time Limitations

Twenty-five study states impose time limitations on the distribution of comprehensive benefits ranging from 5 days (North Dakota) to 30 days (Hawaii, Kentucky, and Puerto Rico). Fifteen days is the most frequently cited period. States vary as to whether days are counted per calendar year, fiscal year, or “12-month period.”

Volunteers in Oregon receive comprehensive benefits after the ARC determines a disaster level II or higher. In North Dakota benefits are received if there is a disaster level II or higher or an emergency declaration. In Kentucky, New Hampshire, and Oklahoma, a disaster level III or higher must be issued for such benefits. In Hawaii, Idaho, and Vermont (if services are available),
<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Citations</th>
<th>Employment Status</th>
<th>Time Limits</th>
<th>Geographic Limits</th>
<th>Disaster Declaration Required</th>
<th>Employer Approval</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO</td>
<td>CRS 24-33.5-825</td>
<td>Government employees</td>
<td>Yes: 15 d per calendar year</td>
<td>No</td>
<td>No</td>
<td>No, but cannot be deployed if essential to the operation of employer’s daily task</td>
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<tr>
<td>CT</td>
<td>Conn. Gen. Stat. 5-249; Conn. Gen Stat. 7-461a</td>
<td>State employees who are volunteer firefighters, ambulance service personnel, canine search and rescue, or with the ARC; municipal employees who are certified disaster service volunteers with the ARC</td>
<td>Yes: 15 d per 12-mo period; Yes: 14 d per year</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
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<tr>
<td>DE</td>
<td>29 Del. C. 6003; 29 Del. C. 5119</td>
<td>State employees certified with the ARC; state employees who are active volunteer firefighters or auxiliary members</td>
<td>Yes: 15 d per 12-mo period; no limits</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>GA</td>
<td>OCGA; 39-2-92</td>
<td>State employees certified with the ARC</td>
<td>Yes: 15 d per 12-mo period</td>
<td>Yes: applied only to disasters in GA or a contiguous state</td>
<td>No</td>
<td>Yes</td>
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<tr>
<td>HI</td>
<td>HRS 78-23.5</td>
<td>State employees certified with the ARC or a federally chartered nongovernmental disaster relief organization; county employees certified with the ARC</td>
<td>Yes: 30 d</td>
<td>Yes: disaster level III or higher or a declared disaster</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>ID</td>
<td>Idaho Code 67-3338</td>
<td>State employees certified with the ARC</td>
<td>Yes: 120 work hours per 12-mo period</td>
<td>Yes; applied only to disasters in ID or a contiguous state</td>
<td>Yes: disaster level III or higher or a declared disaster</td>
<td>Yes</td>
</tr>
<tr>
<td>IL</td>
<td>50 ILCS 122/15; 5 ILCS 335/3</td>
<td>State and local government employees certified by the ARC or IEMA</td>
<td>Yes: 20 working days per 12-mo period</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>IN</td>
<td>Burns Ind. Code Ann.; 4-15-14-7</td>
<td>State employees certified by the ARC</td>
<td>Yes: 15 d per fiscal year</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>IA</td>
<td>Iowa Code 55.2; Iowa Code 70A.26</td>
<td>State employees who are volunteer firefighters or EMS personnel; public employee certified by the ARC</td>
<td>Yes: the period of emergency response; yes: 15 work days per 12-mo period</td>
<td>No; Yes: applied only to disasters in IA (public employees)</td>
<td>No</td>
<td>No; yes</td>
</tr>
<tr>
<td>KY</td>
<td>KRS 61.395</td>
<td>State employees certified by the ARC</td>
<td>Yes: 30 work days per 12-mo period</td>
<td>No</td>
<td>Yes: disaster level III or higher</td>
<td>Yes</td>
</tr>
<tr>
<td>LA</td>
<td>La. R.S. 42.450.2</td>
<td>Public employees certified by the ARC</td>
<td>Yes: 15 work days per 12-mo period</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>MN</td>
<td>Minn. Stat. 43A.185</td>
<td>State employees certified by the ARC</td>
<td>Yes: 15 d per 12-mo period</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>
### TABLE 1—Continued

<table>
<thead>
<tr>
<th>Jurisdiction</th>
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</tr>
</thead>
<tbody>
<tr>
<td>MD</td>
<td>105.267; R.S. Mo.</td>
<td>State employees certified by the ARC or a state recognized disaster volunteer organization</td>
<td>Yes: 120 work hours per fiscal year</td>
<td>Not for 1st 25 state employees</td>
<td>No</td>
<td>Yes: up to 25 state employees can be granted leave unless there is a written order by the governor</td>
</tr>
<tr>
<td>NC</td>
<td>NC Gen. Stat. 166A-32</td>
<td>State employees certified by the ARC</td>
<td>Yes: 15 work days per 12-mo period</td>
<td>Yes: only applied to disasters in the US</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>ND</td>
<td>ND Cent. Code 54-06-14.3</td>
<td>State employees certified by the ARC</td>
<td>Yes: 5 d per calendar year</td>
<td>No</td>
<td>Yes: disaster level II or higher or a declared disaster</td>
<td></td>
</tr>
<tr>
<td>NE</td>
<td>R.R.S. Neb. 81-1391</td>
<td>State employees certified by the ARC</td>
<td>Yes: 15 work days per year</td>
<td>No</td>
<td>Yes: disaster level III or higher</td>
<td></td>
</tr>
<tr>
<td>NH</td>
<td>RSA 94 3-c</td>
<td>State employees certified by the ARC</td>
<td>Yes: 15 working days per fiscal year</td>
<td>No</td>
<td>Yes: disaster level III or higher</td>
<td></td>
</tr>
<tr>
<td>NY</td>
<td>NY C.L.Pub A 2850-a; CLS Civ. 5 82-b; CLS Gen Num 92-c</td>
<td>Public officer, state employee and school district employees</td>
<td>Yes: 15 working days per calendar year</td>
<td>No</td>
<td>Yes: disaster level III or higher</td>
<td>Yes</td>
</tr>
<tr>
<td>OK</td>
<td>74 OK St. 840-2.24</td>
<td>State employees certified by the ARC</td>
<td>Yes: 15 d per 12-mo period</td>
<td>Yes: only applied to disasters in OK</td>
<td>Yes: disaster level III or higher</td>
<td>Yes: up to 500 state employees can be granted leave</td>
</tr>
<tr>
<td>OR</td>
<td>ORS 401.378</td>
<td>State employees certified by the ARC</td>
<td>Yes: 15 d per 12-mo period</td>
<td>Yes: only applies to disasters in OR</td>
<td>Yes: disaster level II or higher</td>
<td>Yes</td>
</tr>
<tr>
<td>PR</td>
<td>3 L.P.R. A. 703F-2</td>
<td>Government employees certified by the ARC</td>
<td>Yes: 30 d per 12-mo period</td>
<td>No</td>
<td>Yes: emergency declaration in effect</td>
<td>No</td>
</tr>
<tr>
<td>RI</td>
<td>RI Gen. Laws 28-49-3</td>
<td>State employees certified by the ARC</td>
<td>Yes: 10 working d per calendar year</td>
<td>No</td>
<td>Yes: disaster level III or higher</td>
<td>Yes</td>
</tr>
<tr>
<td>SD</td>
<td>S.D. Codified Laws 3-6c:21.3-6c:21</td>
<td>Public employees certified by the ARC</td>
<td>Yes: 10 d per calendar year</td>
<td>No</td>
<td>Yes: disaster level III or higher</td>
<td>Yes</td>
</tr>
<tr>
<td>TN</td>
<td>Tenn. Code Ann. 50-3-309</td>
<td>Volunteer firefighters</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Optional</td>
</tr>
<tr>
<td>VT</td>
<td>V. S.A. 265</td>
<td>State employee certified by the ARC</td>
<td>Yes: 15 d per fiscal year</td>
<td>Yes: if disaster services provided outside VT, payment must be authorized by the governor</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>WV</td>
<td>W. Va. Code 15-5-15a</td>
<td>State employees certified by the ARC</td>
<td>Yes: 15 d per year</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*Note:* ARC = American Red Cross; EMS = emergency medical services; IEMA = Illinois Emergency Management Agency.

**Economic Limitations**

Emplo[yers of nongovernmental volunteers in Iowa can determine whether they can leave work to volunteer and can deduct the absent time from their pay. A reduction of pay can also result for volunteers from the Northern Mariana Islands. In Palau, volunteers will not receive compensation from the national government. A volunteer firefighter in Maine can be charged lost time against regular pay or leave time.
Michigan limits the number of state employees who can be granted paid leave during a fiscal year to 50. West Virginia volunteer firefighters and EMS personnel can lose accumulated leave time and pay if they respond to an emergency before the beginning of the workday. In North Dakota, a volunteer emergency responder can be terminated for not attempting to inform their employer before deployment.

Few jurisdictions address benefits during training. Volunteers in the US Virgin Islands can take leave with pay if training with the ARC. In California, certain volunteer firefighters, law enforcement officers, and EMS personnel can take temporary leave to participate in training. Conversely, in the Federated States of Micronesia, unpaid volunteers will not receive compensation from the government during training. Volunteers in Guam do not receive pay during training unless they use personal or vacation leave.

**SUMMARY**

Current employment laws across the United States lack uniformity, and standardized minimum benefits are not afforded to all volunteers. Federal law in other arenas, however, has set minimum standards for state compliance, such as privacy protections under the Health Insurance Portability and Accountability Act, essential benefits required by the Patient Protection and Affordable Care Act, and Medicaid mandates. By contrast, the European Union provides workers in its member countries with consistent, generous protections and benefits.

Furthermore, the limitations some jurisdictions place on volunteers are counterintuitive, hinder volunteer participation, and diminish the provision of critical services. Linking the provision of comprehensive benefits to governmental employment and excluding other work environments is inequitable. Limiting benefits to geographic locations deters intrajurisdictional collaborations essential to address major disasters; however, predating workers’ benefits on emergency declarations makes sense. The ARC responds to nearly 64,000 disasters each year; however, 90% of those are house fires. It is almost certain that a disaster declaration at some level would be issued before a multistate, protracted response is warranted. Arbitrary time frame restrictions, especially as few as five days per year, force volunteers to choose between continuing benefits and deployment. Finally, because training is a critical component of emergency preparedness, comprehensive benefits should accrue during reasonable and compulsory instruction periods.

All volunteers deserve equal protection, which will strengthen response capabilities, enhance community resiliency, and, ultimately, improve public health. We, as a nation, expect volunteers to help when disasters strike. By standardizing employment benefits and removing legal barriers, not only will volunteer recruitment and deployment be improved, but those who serve selflessly will be protected while they are protecting us.

**CONCLUSIONS**

The development of ELI benefited greatly from the successful engagement of an academic–public health practice–private sector partnership, as well as from end user feedback throughout the entire project period. The utility of ELI was clearly demonstrated when used to compare workers’ benefit laws across 60 jurisdictions. The use of ELI revealed serious shortcomings and inconsistencies with respect to volunteers’ benefits.

**REFERENCES**


18. Workers’ Benefits: Disaster Volunteer Protections. 4 CMC 9701.

19. Workers Benefits: Disaster Volunteer Compensation. 34 PNC 531(b).


22. Labor, Wage Payment and Collection, Employers prohibited from discharging employees for time lost as volunteer firemen or emergency medical service attendant. WV Code Chapter 21, Art. 5, §21-5-17 (2011).


24. 3 VTC 265.


27. Workers’ Benefits: Certification as Disaster Service Volunteer. 4 GCA 16105.
