Public Libraries as Post Crisis Information Hubs

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**ABSTRACT**

Like the crisis responses to hurricanes, after a tornadic event, public libraries play emergency roles both in the short and long term. Community members rely on public libraries for Internet access to request aid, to help find missing family and friends, to file Federal Emergency Management Agency (FEMA) and insurance claims, and, in general, to begin rebuilding their lives. This article reports the quality of services and activities public libraries performed in response and recovery in 12 different communities impacted by tornadoes. The discussion includes an evaluation of the quality of the responses and some recommendations to improve preparedness and response.
INTRODUCTION

On April 27, 2011, a series of tornados tore through Alabama killing 131 people across the state. Tuscaloosa was hit the hardest by an EF-4 (i.e., Enhanced Fujita Scale fastest winds from 208 to 260 mph) tornado that destroyed more than 5,000 homes (Phillips 2012). Less than one month later, on May 22, 2011, an EF-5 (i.e., fastest winds from 261-318 mph) tornado swept across Joplin, MO, damaging or destroying 7,500 homes and 500 businesses and city structures (National Oceanic and Atmospheric Administration 2011). The Joplin tornado was the deadliest single tornado in recent history, killing 161 people and injuring thousands more (Young 2011).

In the spring of 2012, more than 45 tornados sprung up across rural southern Indiana and northern Kentucky, killing 13 in Indiana and another 23 in Kentucky (Dillingham 2012). An EF-4 twister stayed on the ground for more than 49 miles cutting through Henryville, IN, while an EF-3 stayed on the ground for 95 miles leveling the small town of West Liberty, KY. All of these tornados left in their wake shock, confusion, and mass wreckage.

Immediately after the storms, the hard-hit communities experienced immediate needs for information as residents struggled to make decisions with only limited information and typically a loss of telephone service and power. Regardless of the community, each individual who lost their residence in a tornado had similar decisions to make regarding what to do, where to go, how to locate supplies and help clean up, contact and locate family, file insurance claims, and apply for federal aid. Also, many of those residents who did not lose their homes were often still without power or any telecommunications. Phone, Internet and cable services were out for more than a month in some of the more rural communities in this study. With limited access to traditional communication channels, disaster victims utilized their local public libraries, which
provided free public access to computers and the Internet in most communities soon after the events.

Results from the 2010–2011 Public Library Funding and Technology Access Survey, show that 64.5 percent of public libraries reported being the only provider of free public access to computers and the Internet in their communities, and 91.8 percent of libraries reported they helped people understand and use e-government websites (Bertot et al. 2012). Forms and documents needed to apply for federal aid are almost exclusively online, and many users lack information and computer literacy needed to obtain them. These citizens seek assistance from public librarians (Mandel et al. 2010). Certainly, these e-government and Internet provider roles for local public libraries are heightened after a tornado has impacted a community. This study also found that everyday library resources like fax lines and power strips become critical in crises. Still, the library response roles described in this article were nearly all reactionary and their quality varied. Although essential in varying ways to each community’s recovery efforts, the public libraries in communities hit by different tornadoes have lessons to share on how other public libraries should plan and be better prepared when disaster strikes.

*LITERATURE REVIEW ON THE ROLES OF PUBLIC LIBRARIES IN DISASTER RESPONSE*

Past library research described the help public libraries provided in disaster response along the Gulf Coast in 2004-2005 (McClure et al. 2009). Public library services included responding to information inquiries; creating community contact centers; staffing shelters in library buildings; housing city command centers (i.e., police, fire, public works); distributing food and supplies; providing hook-ups to recharge electronics and communication devices; assisting with the completion of Federal Emergency Management Agency (FEMA), insurance
claims documentation, and other paperwork; providing library materials to evacuees in shelters; providing FEMA, Red Cross, National Guard, and Army Corps of Engineers personnel with a place to meet with residents; and giving temporary library cards to relief workers (Skinner 2008).

The use of the Internet to contact FEMA was the most frequently cited service in the library literature. FEMA aid forms can only be completed online and require certain levels of computer and information literacy skills. In some communities, public libraries were the only places where people could get online and access FEMA forms. One librarian in a Gulf Coast study noted, “Our staff helped customers file over 45,000 FEMA applications [and] insurance claims” (Jaeger 2006, 207). Another study showed that even though 35 percent of the Louisiana public libraries were closed, their overall number of visitors only went down by 1 percent, indicating that individuals sought library services elsewhere if their library was closed (Skinner 2008). The literature presents plenty of evidence demonstrating how public libraries serve as critical agents in post-crisis recovery. The legitimacy of public libraries as disaster-response centers was affirmed on January 7, 2011, when FEMA changed its policy to allow libraries to be eligible for funding to secure a temporary relocation during major disasters and emergencies (Kelley 2011).

Despite the harrowing stories of librarians in previous studies, much of the focus in library literature remains on creating disaster plans for protecting materials (Kahn 2003; Green and Teper 2006). Moreover, the coordination and communication between public libraries and other partners in disaster response remains unexplored.

This article is an attempt to analyze the effectiveness of public library responses to tornado disasters in 12 different communities in order to assess institutional preparation to meet such crises and the roles they played in disaster recovery.
METHODOLOGY

To research the effectiveness of public librarians in reaction to crises, the research team conducted an exploratory study to identify and describe the quality of services and activities public libraries performed in response and recovery to recent tornadic events. The study received funding from the University of Colorado Natural Hazards Center through its Quick Response Grant Program, which is funded by the National Science Foundation. The research team conducted face-to-face and telephone interviews with 22 librarians from 12 different community libraries across northern Alabama (n=3), southwest Missouri (n=3), southern Indiana (n=2), and Kentucky (n=14).

All participating librarians (n=22) were systematically identified based on whether their community had structural damage from a tornado. All participating librarians signed a consent form allowing the recording and analysis of their comments. Researchers received approval from their university Internal Review Board (IRB) prior to conducting this study. Notes were taken throughout the interviews to address the level of preparation of each library, the types of help each library gave, how and why some libraries were more prepared than others, as well as to determine how other libraries may best position themselves to deliver quality crisis preparedness and response given ever-present fiscal and time constraints. The interview recordings were replayed to assure accuracy of the notes and direct quotations.

Telephone interviews (n=7) were first conducted with participants in communities where a tornado had occurred at least one year prior (Alabama and Missouri) to gain retrospection on the events and pilot the interview questions. Face-to-face interviews (n=15) were then conducted with participants who had experienced a tornado in the last three months to gather more recent recollections of post crisis events (Indiana and Kentucky). Ten of the libraries survived the
storms unscathed, one library lost its roof, and another was later condemned because the tornado moved the building two inches off its foundation. In the two communities where libraries were lost, the librarians were fortunately able to work at other branches and tell their stories in assisting with the recovery at those locations. Each library varied in the quality of services and activities performed in their responses.

The interviews included the following seven questions related to each library’s ability to help their communities bounce back from the disaster:

1. Describe your experience related to tornado preparation. We are particularly interested in the role of you and your library (the plans, services, and activities in which you and your library were engaged).

2. Describe your experience related to tornado recovery. We are particularly interested in the role of you and your library (the plans, services, and activities in which you and your library were engaged).

3. Please summarize your experience into key roles (e.g., plans, services offered to the public, activities).

4. What resources or training were needed for you to perform those key roles?

5. Which government and/or private organizations assisted in your key roles?

6. What would you want other libraries to know to prepare for other disasters?

7. What are the most vital factors that enabled your organization to be resilient?

These questions allowed each librarian to describe the tornadic event and give the researchers data to determine how prepared each library was before the crisis, what services each library gave related to the event, how and why the libraries that succeeded were more prepared, and also help inform other libraries how to best prepare for a major disaster.
While every public library's story was unique, many of the key roles conducted by public libraries in response to tornadic events correspond to those from prior studies of public libraries’ response to hurricanes—including e-government assistance with completing and turning in forms, reconnecting with family and friends, filing insurance claims, and gaining knowledge on how to rebuild their lives. Also like the libraries responding to hurricanes, many public libraries were without a specific plan of action. Most of the library services provided were reactionary to events as they unfolded, and all but two of the public libraries did not coordinate their work with other emergency responders.

All of the public libraries had a disaster plan that detailed the steps to take to ensure the immediate safety of librarians and library users in the event of a crisis. The libraries were prepared to move patrons to their basements, stairwells, or bathrooms when weather websites, weather radios, or sirens signaled a tornado warning. In the libraries that had plans, employees received emergency training that included how to secure the building and any users. These short-range plans helped organize the immediate need to provide shelter for individuals during warnings; however, only two of the libraries had plans to address how the library will serve in the aftermath of a crisis. As a result, each library in this study later created a more detailed plan to prevent the library from facing an entirely reactive position if disaster should strike again. In fact, following the 2011 tornadoes in Alabama, the Alabama Public Library Service now requires every public library to have a long-range disaster plan.

In one library system, five of its seven facilities had experienced a tornado within the previous decade. These experiences motivated the system to create a more detailed disaster plan. The other library that had a detailed long range disaster plan had established partnerships with
county transportation, water and sanitation, fire, and schools, and the library director attended quarterly meetings of a countywide task force that discussed many different issues, including disaster planning. For most of the communities, the librarians repeatedly said, "We just reacted – we weren't prepared for any type of disaster." Despite their lack of a disaster planning, most public libraries provided the same types and quality of recovery services after each tornado.

In all instances, the public libraries served more as an information hub to direct users about where to get resources and less as a responder providing resources. All but one library director reported an increase in the number of users looking up information and using e-government websites, including downloading and completing FEMA and insurance forms, tracking down lost tax information, filing for unemployment if their employer’s business was destroyed, and faxing and copying documents. At the one library that did not experience an increase in visitors after a tornado, most of the city's residents were forced to move to other nearby communities because their homes had been blown away. As in other e-government studies, some users needed to be taught how to use a computer, set up an email account, and navigate unfamiliar e-government Web sites to locate forms. Many users also needed to get online to contact friends and family through social media (e.g., Facebook). In times of crisis, libraries did not keep accurate reference transaction and visit data, so they could not record the extent of increased service demand.

As noted, the public libraries acted primarily as information hubs in the response efforts. Responders and residents would call the library "to get phone numbers" and the libraries served "as an information filtering agency." In one instance, the city government provided a simple contact sheet for the libraries to help direct people, while another library had a 211 project specialist create a reference list to help refer users to the proper responders and emergency
services. Librarians in all communities, even though unprepared with a detailed plan, did retain local knowledge from serving for a long time in these smaller rural communities and were able to assist because they "knew everyone in town."

In one of the hardest hit and smallest communities (<2,000 residents), the library used the analog approach of a bulletin board to help find lost people and pets. In the community where the librarian was part of a countywide taskforce, things went smoothly. "We already know who to call" and this made all the difference. In each community, the public library fulfilled a heightened need to connect people with each other and to agencies which could provide needed assistance.

Since many community members were without power for several days or even weeks after the storms, all the public libraries in this study allowed users to charge cell phones and laptops. Again, almost all the libraries saw a significant increase in copies and faxes, and in each case, fees were waived for FEMA and insurance-related documents. These simple steps allowed each library to share its power, faxing, copying, computer, and Internet capabilities by building on established library service roles. Without additional workload and minimal cost, these services, along with the role that public libraries can play as crisis information hubs, are essential to any public library helping a community recover from disaster.

Some public libraries conducted other activities, but none were necessarily essential and may not be an option for some communities. These other disaster related roles involved collaboration with agencies beyond the library. Nationally, about 31 percent of public libraries report collaborating with government agencies, and several examples of successful collaborations do exist (Bertot et al. 2012; Bishop, McClure, and Mandel 2011).
In five instances, FEMA dropped off forms at the public library for distribution. Three libraries offered FEMA workers space and access to printing, faxing, computer, and the Internet, and in one location, a FEMA worker met one-on-one with individuals in the library conference room. In this capacity, the libraries and librarians tangentially supported FEMA's information needs, but refrained from getting into the business of managing the emergency.

Other non-essential activities that occurred in at least one library included—police using the library WiFi; volunteers setting-up portable toilets in parking lots; bookmobiles delivering supplies to the Red Cross; the library serving as a drop-off and pick-up site for donated food, water, tarps and supplies; the library housing both a bank and the unemployment office in its conference rooms for months after the storms. Again, the motto of "we just help people" appeared in each community, but the actions lacked a formal structure as each community faced chaos after these devastating storms.

Despite the examples of extra effort, some librarians still felt the library's role was "not 'critical,' [because they defined critical as] providing food, clothing shelter." The library was instead seen as a "‘comfort’ – familiarity, a luxury.” This discrepancy in what is and is not essential may result from each library's leadership role in their community. It also may result from board members and upper-level library managers not helping staff define what is ‘critical’ in the service needs of a 21st century community. After spending several hours in one community interviewing librarians and users about all the library’s disaster-response activities, the research team interviewed the local fire chief who stated that he had no idea the library had been involved in the recovery effort.
RECOMMENDATIONS

Upon learning of this study, a former FEMA director commented that FEMA did not have public libraries on the radar as a potential resource in disaster recovery, “I think you’re really on to something there, I mean, where else are they going to go? Libraries have back up generators for power, they have Internet, they have people who will help you. I guess we never really thought of the role libraries could play” (Paulison 2012). This comment is also reflected in the change to FEMA policy that now allows libraries to be eligible for federal funds for temporary relocation during major disasters and emergencies. Our research indicated that the critical nature of libraries in disaster response still was not well recognized in many communities.

The following recommendations derive from the central theme that public libraries need to be “at the table” prior to a disaster not only because they will serve in some essential disaster recovery roles, but so that when they do, they get credit. Using geospatial data of FEMA Declared Disasters (http://gis.fema.gov/DataFeeds.html), Table 1 provides federally declared disaster counties by incident type in the U.S. from 2009-2011.
<table>
<thead>
<tr>
<th>Incident Type</th>
<th>Number of Declared Disaster Counties</th>
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<tbody>
<tr>
<td>Severe Storm(s)</td>
<td>2,618</td>
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<tr>
<td>Flood</td>
<td>493</td>
</tr>
<tr>
<td>Snow</td>
<td>310</td>
</tr>
<tr>
<td>Hurricane</td>
<td>302</td>
</tr>
<tr>
<td>Severe Ice Storm</td>
<td>179</td>
</tr>
<tr>
<td>Fire</td>
<td>166</td>
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<tr>
<td>Tornado</td>
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</tr>
<tr>
<td>Earthquake</td>
<td>15</td>
</tr>
<tr>
<td>Tsunami</td>
<td>9</td>
</tr>
<tr>
<td>Coastal Storm</td>
<td>8</td>
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</tbody>
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Table 1. Number of FEMA Declared Disaster Counties 2009-2011 by Incident Type.

The Institute of Museum and Library Services (IMLS) Public Library Data Files (https://harvester.census.gov/imls/data/pls/index.asp) combined with the FEMA Declared Disaster Counties may be analyzed and visualized in Geographic Information Systems (GIS) software to discover that from 2009-2011, 11,079 public library outlets of the total 17,487 public library outlets nationally were within a declared disaster county. Map 1 shows the US public library outlets within 2009-2011 declared disaster counties.
Map 1. US Public Library Outlets in 2009-2011 FEMA Declared Disaster Counties.

The implication of this map is the inference that all public libraries eventually will face some natural or anthropogenic disasters and all should be prepared. A library disaster plan should go well beyond the typical topics addressed related to business continuity (e.g., succession of leadership, emergency staff contact information, and how to secure and ensure safety for the building, staff, and users). In addition, detailed lists of property for insurance purposes, payroll stability information, off-site backups of integrated library systems (ILS), are all critical concerns related to library operations after a crisis and items a library should address in any disaster plan.

As we have seen in this study and prior work with public libraries and hurricanes, libraries provide communities with essential services related to recovery efforts and this requires communication and collaboration with organizations outside the library. This study found that more focus could be placed on streamlining the role of public libraries in assisting with
community recovery post crisis by coordinating the library's disaster recovery plan with the emergency responders and managers in the area. Making these connections well before an event occurs, as some communities in this study did, may result in a more coordinated response.

These connections may be made by joining a local communitywide task force as the exemplar in this study did or contacting the local emergency manager to understand the chain of command for emergency preparedness and management. Such a process would allow each library to develop a plan that integrates library activities with the other responders in a community. Local fire, police, and other community-based organizations should at least be informed of what roles the public library could potentially play in disaster response, if included in a plan and provided the appropriate resources. This action will promote the everyday e-government services most public libraries provide and increase the quality of disaster recovery for communities.

A simple task to perform without engaging the emergency response community is to have updated emergency contact information. The most successful libraries in this study said, "We already know who to call," and this made all the difference. The highest quality responses in this study came from the libraries that updated their information quarterly, but a more practical approach to those librarians stretched thin on resources would be to revisit annually prior to the typical season for tornadoes and hurricanes. Hamilton (2011) recommended updating these lists every six months. Obviously, many manmade and natural disasters are not seasonal so libraries in areas prone to those events should consider other schedules of updating emergency contact information.

At one library, emergency responders needed a map of the community. The rise in popularity and ease of use of Google Maps and Google Earth™ enable anyone to create maps on
the fly with minimal training (Sui, 2008). With new spatial media tools, like Open Street Map, volunteers from around the world helped responders on the ground in Haiti by verifying satellite imagery with ground truths (Zook et al. 2010). Librarians may use more analog versions of maps, but as an emergency unfolds knowing the locations of requisite supplies and persons with special training or skills are as critical as fast updates of contact information after a disaster occurs.

This study did not find any instance in which public library disaster services were adequately measured. Although disasters complicate normal operations, the value of counting visits and e-government related service transactions after these events would be very valuable in quantifying the assistance provided by public libraries and will help libraries demonstrate their essential disaster services. Future work in this research area will need to explore how best to parlay public library services and resources to benefit communities recovering from disasters. Clearly, more interviews are needed with librarians facing other disasters, risk communicators, and emergency managers to gather data on how best to integrate public libraries into disaster planning, response, and recovery. This study provided a report on the quality of services and activities public libraries performed in response and recovery to recent tornadic events in 12 different communities. A summary of this study’s recommendations include the following:

- All public libraries should develop a disaster plan or modify their current disaster plan to include how the library can assist the community in post crisis recovery. Plans should be in place prior to a disaster and include activities related to both the continuity of library business and the essential disaster response roles that the library will provide their community.
- Libraries should implement mechanisms to obtain regular updates of emergency contact and address information to remain prepared for a disaster whenever it occurs.
- Library directors and other emergency response managers must meet and work together to determine how to best integrate public libraries’ information, reading and viewing resources into the existing community disaster planning framework.
- Count! Quantifying the number of users assisted in disasters will provide clear evidence of the essential nature of public libraries in disasters.

By planning, keeping up-to-date, starting conversations with other responders early, and quantifying the response activities, public libraries can embrace their role in the community and be a part of the community disaster preparedness instead of living with their reactionary role without getting credit for the essential services they do provide. That preparation will allow for a more organized approach to crisis recovery and response. A smoother delivery of the information services needed by communities reduces the chaos for everyone involved.

CONCLUSION

This article has explored the heightened role that public libraries play in times of emergencies by interviewing librarians in 12 communities affected by recent tornadoes. The value of public libraries appears in multiple disaster-related studies by providing communication and information resources that may not otherwise be accessible to those in distress. Still, whether located in the hurricane-ravaged areas along the Gulf Coast or in the many tornado impacted communities, public libraries can take systematic steps to ensure their disaster-response roles are essential, coordinated with other agencies and well known among disaster responders and other prominent community leaders. Without this effort, public libraries will deliver haphazard and
low quality assistance rather than what is possible as demonstrated by the few very prepared libraries in our study.

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