Abstract
In a world where disasters can strike at any time and at any magnitude, it is important for Extension organizations to be resilient and assist their community through localized crises. Preparedness at the organizational level has a relational effect to the amount of support available to communities at their hour of need. When county Extension offices are prepared and have protocols in place to allow them to rebound quickly, office personnel are better equipped to facilitate and respond to recovery needs. This article presents Ohio's commitment to ensure emergency preparedness of its Extension county offices using business continuity plans.

Introduction
Recent experiences with natural and man-made disasters have heightened the awareness for emergency action plans in the U.S. workplace. The need for Business Continuity Planning was implemented in Ohio as a statewide initiative for all university departments, including county Extension offices. While the process was admittedly cumbersome, the underlying premise for launching an effort of this size was momentous.

The policy of the United States Department of Agriculture (USDA) National Institute of Food and Agriculture (NIFA) is to be prepared to respond swiftly in the event of security, technological, or natural disasters at national, regional, state, and county levels in order to provide support and comfort to the people of the United States (USDA, 2001). To uphold this mission, Extension directors and administrators repeatedly include community sustainability and resiliency in their annual report, Strategic Opportunities for Cooperative Extension (National Association of State Universities and Land-Grant Colleges, 2009).

While the concept of community sustainability and resiliency is an identified function of the Cooperative Extension Service, it is possible for this topic to not be at the forefront of county Extension programming. Many Extension organizations are affected by external factors, including funding reductions, personnel restructuring, and public support (Smith & Torppa, 2010; Lyons, O’Neill, Polanin, Mickel, & Hlubik, 2008; Kalambokidis, 2004). Adding emergency management responsibilities to an already busy and dynamically changing personnel team at the county Extension
Office can be met with resistance. County educators often report high levels of stress and frustration as they balance a full slate of responsibilities (Fetsch & Kennington, 1997; Kutilek, Conklin, & Gunderson, 2002; Ensle, 2005).

Yet an Extension office can be the cornerstone of scientific and educational resources when it comes to emergency response; county educators often serve as that critical communication link for families, communities, and area businesses affected by disaster (Boteler, 2007). Another benefit for a county office to have a Business Continuity Plan lies in the efforts to recover business functions following a localized disruption.

The concept of emergency preparedness was addressed by two coastal states in their response to hurricane seasons. Florida Extension professionals reported they were not prepared to deal with the professional demands and clientele needs while coping with their own personal hardships as a result of the 2004 storms (Telg, Irani, Place, DeGroat, Ladewig, Kistler, & Barnett, 2008). Louisiana Extension identified two valuable lessons after hurricanes Katrina and Rita; these included being prepared and accountable for everyone on the office staff and having the organizational capacity to swiftly and efficiently respond to clientele needs (Cathey, Coreil, Schexnayder, & White, 2007).

**Business Continuity Plans**

Business continuity planning (BCP) describes the ability of an organization, agency, or business to maintain critical functions of operation in times of uncertainty or organizational imbalance (Federal Financial Institutions Examination Council, FFIEC, 2003). Business continuity is particularly important for agencies involved in community emergency response. Due to the fact that county Extension offices are included in many state emergency plans, it is imperative for field faculty and staff to be competent in maintaining certain functions and services during times of community distress.

**Business Continuity Plans for Ohio State University Extension**

In 2006, The Ohio State University conducted a mock emergency training program, using the Pandemic Flu epidemic as the topic. Based on feedback received following the tabletop exercise, the university issued recommendations for improving emergency preparedness. Business continuity planning was the first of these recommendations.

The university selected an online software program, Living Disaster Recovery Planning System (LDRPS), in which all plans were created. A university management team oversaw the project and provided educational training. The initial reaction to this software program was that it may be adequate for campus departments; however, it did not meet the functions of Ohio's county Extension offices.

Prior to this university BCP initiative, an internal inquiry was conducted by state staff to learn of county educators' involvement in local emergency management functions. Only 25% of the Agricultural and Natural Resource educators had experience with their local Emergency Management Agency while participating under Emergency Support Function (ESF) 11, Agriculture. Likewise, other OSUE educators and office staff had limited to no experience with emergency or disaster planning as it related to their function or their work environment. It was evident that groundwork was needed to
educated staff in county offices about disaster preparedness strategies and that immediate adoption of a BCP program may be met with resistance, merely for the fact of not understanding its benefits.

**Program Logic Model**

The Logic Model developed by the University of Wisconsin Extension (Wholey, 1979; Taylor-Powell, Jones, & Henert, 2003) is widely used, with some modifications, throughout Extension. This evaluation-based program model was selected as the most appropriate model to develop the Ohio BCP program. Besides its characteristics of being highly effective and simple to use, this model also provided the project management team the opportunity to evaluate the outputs according to short-, intermediate-, and long-term impacts. Figure 1 depicts the Ohio Business Continuity Planning Program in the format of the Logic Model.

![Logic Model Diagram]

**Methods**

August 2013

Developing Business Continuity Plans for County Extension Offices: The Ohio Approach

JOE 51(4)

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In order to efficiently and succinctly implement the Ohio BCP program the project team organized the approach into two phases. Phase 1 focused on critical steps to take during the first 4 hours post-emergency or disaster—beginning with the evacuation of the office. Phase 2 developed a recovery process consisting of a business impact analysis in which recovery time objectives determined the priority for resuming various responsibilities within the county office. Within each phase there was opportunity for template development, educational workshops, plan testing, and evaluation.

**Phase 1**

**Template Development**

To ensure consistency throughout all county offices, project staff developed a curriculum to describe key terminology and processes that occur during emergency planning, including the primary reasons for implementing an emergency action plan. Within this curriculum, a template was developed for each county Extension office to satisfy the university’s software program.

The Phase 1 template ensured that all offices addressed four functional teams. These teams and their descriptions included:

1. **Management and Leadership**—Manages implementation of the plan by providing leadership to staff as they complete their assigned tasks.

2. **Safety and Security**—Ensures that county staff, office visitors, and other individuals onsite at the county office are safe and that the county offices, current and alternate, are secured.

3. **Crisis Communications**—Provides and manages communication between county office and local authorities, media, and Extension key contacts.

4. **Damage Assessment**—Provides initial visual assessment to determine the degree to which damage has occurred to county office/building, materials, and supplies.

On each team there were three positions to which staff could be assigned—County Director, County Co-Director, and County Staff. The task of the Co-Director was to assist the Director in performing his or her tasks or to perform the Director’s tasks in the event of his or her unavailability. Not every county office in Ohio had a Co-Director, therefore, per the Director’s discretion, the staff member best suited for that position was assigned as the Co-Director for the purpose of the BCP. In the event of a two-person office, the Co-Director position was left unassigned.

Two critical persons per county played a key role in plan development, the Plan Owner, who was the County Director, and the Plan Manager, who was a staff member designated by the County Director. In many cases, the Plan Manager was the County Co-Director when the county had such a position. These persons were authorized to enter data into LDRPS.

The project team developed criteria to assist county office staff in completing their Phase 1 template. This rubric guided staff as they completed their templates in that it prompted them to enter county-specific content (i.e., name the county personnel assigned to teams; where is the office assembly
and relocation point; and attach contact information for relevant agencies, departments, and vendors). A second function of the rubric was that it formed the basis of accountability and evaluation when the BCP was tested.

**Educational Workshops**

During Phase 1 the project team conducted a total of 10 educational workshops for Plan Owners. Eight were conducted on-site at regional campuses, and two were conducted online. Each workshop was 2 hours in length, with the first hour devoted to learning the management concepts related to business continuity planning and the second hour dedicated to hands-on work in the participant's county office LDRPS account.

**Plan Testing**

County office preparedness was tested via mock-drill phone calls conducted by a state staff member. When counties received their test call, they were asked to locate the office's BCP. Once acquired, they were asked questions from their plan, for example "where is your staff's emergency meeting location?"

**Evaluation**

Following Phase 1, a formative program evaluation was electronically administered to each Plan Owner and Manager. This survey collected their opinions of BCP education, the quality of training, and available resources.

The state staff member performed a written evaluation of each county's Phase 1 BCP to ensure that the Plan Owner's and Manager's customization of the template met the criteria. A completed Phase 1 BCP was required to proceed to Phase 2 of the planning process. Plan evaluations were performed twice annually as well as upon request from the Plan Owner or Manager. Once approved for advancement, the Phase 2 template was electronically attached to the eligible county plan.

**Phase 2**

**Template Development**

Oftentimes large-scale disasters affect multiple counties simultaneously. Therefore, the recovery plan was based on a uniform prioritization of business functions throughout all 88 Ohio county offices. This standardization provided staff with a step-by-step recovery plan to aid the decision-making process during anticipated stressful and chaotic times associated with emergencies and disasters.

The Phase 2 template did not require county office customization. It contained primary business functions for which each county office had responsibility in Government and Media Relations, Human Resources, Fiscal, and Customer Service Communications. The Phase 2 template also addressed three specific risks that had substantial effects on the office's ability to recover quickly; these included:
- Office staff were unavailable to report to work,
- Technology was unavailable, and
- Loss of the county office.

**Educational Workshops**

All five Phase 2 educational workshops were conducted online in a webinar format. This training was only available to counties that had successfully completed their Phase 1 templates. Due to the turnover of county directors, the workshop began with a review of Phase 1 concepts in addition to the Phase 2 recovery of business operations.

**Plan Testing**

Similar to that done in Phase 1, a mock phone drill was administered to each county office. This evaluation tested their ability to locate the office's BCP and answer questions based on the evaluation criteria.

**Evaluation**

Following Phase 2, a summative program evaluation was electronically administered to each Plan Owner and Manager. This survey collected their opinions on the BCP project experience.

**Results**

Results are based upon data gathered from the two annual testing and evaluation phases as well as the online program evaluations conducted after each phase of the project.

During Phase 1 of the project, 10 workshops were offered to county Extension directors. Seventy county offices (79.5%) were represented at these trainings. Each workshop was 2 hours in length, with the first hour devoted to learning the management concepts related to business continuity planning and the second hour dedicated to hands-on work in the participant's county office LDRPS account.

Training for Phase 2 was conducted for 33 counties representing 89% of the counties eligible to advance to Phase 2 planning. Five, 2-hour training sessions were delivered through Web-based conferences. Due to the turnover of county Extension directors, the workshop began with a review of Phase 1 concepts in addition to the Phase 2 recovery of business operations.

**Short-Term Impacts**

The short-term outcomes were evaluated using a Web-based survey completed by Plan Owners and Plan Managers at the completion of Phase 1 training, with a 50% response rate. Eighty percent of the respondents reported that participation in a training session increased their knowledge of BCP principles as related to their county office and that working directly in their LDRPS account increased...
their skills in using the software. Likewise, 72% of participants felt their office would be better prepared to react to a disaster than prior to the training program. Table 1 reports similar results for usefulness of educational resources. No attempt was taken to survey the non-responders to determine response bias.

Table 1.
Impact of Program Delivery and Resources (n=85)

<table>
<thead>
<tr>
<th>Process Evaluation Results</th>
<th>Percentage in Agreement</th>
</tr>
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<tbody>
<tr>
<td>Utilized the educational products disseminated</td>
<td>81%</td>
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<tr>
<td>Attending training increased knowledge of how BCP relates to their county office</td>
<td>80%</td>
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<tr>
<td>Working in their county office's online LDRPS account during the training sessions helped them understand the software</td>
<td>80%</td>
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<td>Helpfulness of educational products</td>
<td>70%</td>
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<tr>
<th>Opinion Results from Plan Owners</th>
<th>Percentage in Agreement</th>
</tr>
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<tbody>
<tr>
<td>Felt their office is now better prepared for a possible disaster than they were at the beginning of the project</td>
<td>72%</td>
</tr>
<tr>
<td>Felt BCP process was a worthwhile use of time for their county office</td>
<td>62%</td>
</tr>
</tbody>
</table>

Intermediate-Term Impacts

A second evaluation was administered to all Plan Owners and Plan Managers 2 years following the initial launch of the BCP project, with a 49% response rate. The premise of this inquiry was to gain insight into Plan Owners' and Plan Managers' attitudes and perceptions regarding the BCP project as a whole (Table 2).

Table 2.
Perceptions and Attitudes Regarding Business Continuity Planning (n=82)

<table>
<thead>
<tr>
<th>Perceptions and Attitudes</th>
<th>Percent Agreement</th>
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<tbody>
<tr>
<td>I feel emergency preparedness is important for my county office.</td>
<td>63%</td>
</tr>
<tr>
<td>I feel my county office staff is now better prepared for an emergency or disaster.</td>
<td>60%</td>
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I feel this project is important but occurred during a difficult time with the OSU Extension organization.  57%

I feel completing a BCP took valuable time away from other programming efforts.  41%

I feel completing a BCP was overall beneficial to my county office, regardless of staff reduction.  27%

I feel due to reduced staff at my county office this project was not high priority to complete.  24%

I feel completing a BCP was "just another thing I had to do".  24%

After completion of both Phases, 60% reported they felt their office staff was better prepared for emergencies and 63% felt such preparedness was important for their county operations. However, 41% reported completing a BCP plan took valuable time away from their programming efforts.

Through this experience, county staff identified several needs that were not in practice prior to this planning effort. Forty-eight percent of Plan Owners/Managers reported an increased need for off-site data back up and a need to identify alternate office locations for emergency or disaster situations. Broader concepts were reported as secondary benefits to completing this activity. These benefits include increased disaster recovery awareness and identification of issues related to county management structure.

**Long-Term Impacts**

Determining long-term impact on organizational readiness cannot be taken as a single measurement; however, there are indicators that can be used to determine preparedness. After 2 years of annual testing and evaluation of the 88 county BCP plans, Ohio reported 76% of their county offices completed a BCP and were in compliance with the university recommendation. Having a quality business continuity plan increases county Extension offices' capacity to continue business operations during an emergency or recovery quickly following a localized disruption. This in turn enhances the state's organizational ability to serve as a community resource, even during crises.

**Discussion**

During the BCP project, evolution and change was ongoing for the organization as well as individual Plan Owners/Managers. Specifically, OSU Extension was experiencing organizational restructuring. Restructuring resulted in staff changes at county offices, which in turn affected the assignment of Plan Owners/Managers. While staffing changes were difficult in and of themselves, BCP was an additional administrative responsibility for county directors. Despite this project having complete OSU Extension Administrative Cabinet support and endorsement, a 100% compliance goal of all 88 county offices completing a BCP was not achieved.

Several factors affected the complete adoption of the BCP project. First, the university-purchased software package was developed for business application and was difficult to translate to an
organization like Extension. Extension county offices do not operate like a campus department. To overcome this obstacle, state staff developed templates used for each office. This pre-planning effort greatly aided county staffs' ability to work toward compliance, as evidenced by 81% of survey respondents indicating they used the educational materials. Having a full-time state staff position designated to this project was also important for managing questions from Plan Owners and Managers.

Second, the county office personnel structure had an impact on the number of available staff to be assigned to the various positions on the four pre-designed functional teams in Phase 2. Offices with two staff members were responsible for completing the same set of team tasks as offices with 20 staff members.

Third, the Plan Owner (county director) did not initially involve county office personnel in the BCP development process after participation in the training; they developed their office BCP document on their own as if it were an administrative function. This was evident during the first test calls, when office staff were not able to locate their BCP and respond accordingly to the mock disaster; only 39.7% of offices could locate their BCP. During the second test, 75 out of 88 county offices (85%) were able to locate their office BCP, showing improvement.

Fourth, the database-style software program was a barrier for many county Extension professionals to learn. The technology of the program was beyond what was actually needed to produce this type of planning document on the scale needed by an Extension county office. In essence, the software did not fit the culture of OSU Extension county offices.

Conclusion

The efforts described in this article acknowledge the lengthy process undertaken by Extension personnel at all levels of OSU Extension. However the development and implementation strategies are described so that others can understand the potential challenges and opportunities when considering statewide business continuity plans. As a result of this process, Ohio has developed BCP templates that can be used as a model for other Extension organizations to use according to their needs. These plans were developed through NIFA Special Needs grants and published on the Ohio page of the Extension Disaster Education Network (EDEN) website.

The outcomes of this process, beyond meeting the needs for university compliance measures, were that emergency response plans were developed and implemented in county offices. Having the ability to reorganize in a timely fashion following a localized disaster is a strong indicator of an agency's pre-planning functions as well as speaks to the value it commits to the community it serves.

Unintended disasters will continue to happen at unknown rates and in unforeseen geographic locations; for these reasons it is imperative for Extension to be prepared for such unknowns. The impact of having a county BCP is assurance that county Extension offices can meet clientele needs and provide resource information, even during a localized crisis.

References


