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Business Continuity and Disaster Preparedness Planning
Patterns and Findings from Current Research



CITIZEN PREPAREDNESS REVIEW

Community Resilience through Civic Responsibility and Self-Reliance



FEMA

EXECUTIVE SUMMARY

The rise of data processing technologies, globalization of trade, and high-speed communication and travel provide businesses today with an unprecedented set of opportunities for growth. With this new paradigm of business operations, however, also comes a different and expanded set of vulnerabilities to disaster and crises. And the increasing interconnectedness of commercial enterprise with all facets of the community makes business continuity planning a cornerstone of community resilience. Business preparedness reduces the disruption to employees, productivity, and profitability—and enables an organization to play a stabilizing role in the community.

To help assess the level of business continuity planning and disaster resilience, *Citizen Preparedness Review (CPR) Issue 7* provides a summary of publicly available survey data on disaster preparedness and business continuity planning conducted between September 11, 2001, and November 2009.

Findings from this review include the following:

- **There is an increased awareness of the need to prepare, but awareness does not always translate into action.** Businesses increasingly see themselves as vulnerable to disruptions from multiple sources. Major events like the H1N1 pandemic of 2009, hurricanes, and power outages have caused companies of all sizes and industries to pay more attention to their own level of preparedness. Based on survey data, however, there is a wide gap between companies' awareness of the potential for disruption and the amount of planning they have done. This gap may be due to perceptions that disruptive events are either unlikely to occur or that the effects of such events would not be severe enough to warrant investment of resources in preparedness activities.
- **While businesses are undertaking business continuity and preparedness activities at increasing levels, measures taken may be insufficient.** The data suggest that for most organizations the current level of preparedness may be insufficient to ensure continued operations after a disaster. Many businesses that have plans fail to inform and train employees and fail to test the plans frequently and completely through drills and exercises.
- **Businesses prioritize planning for data storage and Internet security more than business continuity for overall operations.** The most common continuity measures reported in the survey results were those intended to protect data storage and electronic communications. Executives with business continuity and information technology (IT) responsibilities appear to have a much higher perception of vulnerability and planning activity than other executives.

Citizen Corps is the Federal Emergency Management Agency's (FEMA) grassroots strategy to strengthen collaboration between government and community leaders from all sectors to engage the full community in preparedness, planning, mitigation, response, and recovery. To support this mission, FEMA's Individual and Community Preparedness Division has tasked ICF Macro to conduct and analyze research and to develop tools for Citizen Corps Councils and others to help achieve greater community resiliency nationwide. The Citizen Preparedness Review (CPR) is published periodically to summarize research findings and to support local efforts to achieve greater community resilience.

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- **Real-world events increase awareness of the need to prepare and impel businesses to take action.** The survey results indicate a strong connection between real-world events and actions to prepare, including experiencing an actual disaster, being located in high threat areas that have had past disaster activity, and witnessing the impact of a disaster in another part of the country.
- **Presenting clear instructions and making the business case for preparedness can minimize perceived barriers and motivate businesses to take action.** Businesses often perceive preparedness to be costly and time-consuming, and, consequently, preparedness is often prioritized behind other business activities. Surveys illustrate, however, that companies are often eager to learn more about cost-effective preparedness strategies.
- **There is a growing appreciation for the benefits of preparedness.** Many businesses surveyed stated that the benefits of having a plan outweigh the costs and that they perceive a possible competitive advantage over competitors who have not completed continuity and disaster preparedness planning.

RECOMMENDATIONS

Business continuity and preparedness survey research among businesses, large and small, appears to be on the rise. But in light of limitations associated with existing survey research—limited access to proprietary findings, the potential for conflict of interest in surveys conducted by business continuity service providers, and a heavy focus on information technology—additional research is needed to more

accurately measure the extent of business preparedness, as well as to fully explain the drivers and barriers of such activity.

This field of research should continue and expand to include:

1. Surveys to a broader, general business audience and more open data
2. Greater analysis of differences between small, medium, and large businesses
3. Geographic segmentation relative to hazard risk and urban vs. rural considerations
4. Business sector analysis, including privately owned critical infrastructure
5. Interconnectedness of business continuity efforts with community emergency operations plans.

Despite the need for greater research, clear strategies to increase business preparedness are emerging:

- **Leverage real-world events to emphasize the importance of business continuity planning.** Real-world events have a clear motivating effect on preparedness. Government, the media, and business and trade associations should promote preparedness directly following actual events. Effective risk management communications include positive reinforcement through success stories rather than exclusively emphasizing loss and destruction.
- **Underscore the importance of employee awareness, training, and exercises.** Even organizations that have business continuity plans and disaster preparedness plans fail to inform employees adequately. Employee preparedness is a critical element of business preparedness, and should include participatory planning, workplace supplies, training, and drills/exercises.

- **Develop tools and information to promote the business case for preparedness.** The research shows that many organizations are unfamiliar with the relatively minor costs of many preparedness actions. Outreach to business should include examples of cost-benefit analysis and underscore low cost actions.
- **Broaden the target audience and understanding of comprehensive business preparedness.** Business preparedness is an enterprise-wide concern. Messages on business preparedness should be directed to senior leadership and decisionmakers. While data storage and IT protections are important, the health of the organization is also dependent on the health and well-being of employees, service and supply providers, and community services.
- **Promote the role of businesses in community preparedness.** As an integral element of any community, businesses have a role in community preparedness. Local business associations and chambers of commerce should develop relationships with emergency managers and other emergency service providers to integrate non-governmental assets and resources into government plans and protocols. Based on the 2009 Citizen Corps National Survey, 48 percent of people who reported taking preparedness training the past 2 years indicated the reason they took the training was because it was mandatory for their job or for school.

DHS SUPPORT FOR BUSINESS PREPAREDNESS

As directed by Title IX of the *Implementing Recommendations of the 9/11 Commission Act of 2007*, the Department of Homeland Security (DHS) is developing the Voluntary Private Sector Preparedness Accreditation and Certification Program. PS-Prep™ is a voluntary program of accreditation and certification of private entities using standards adopted by DHS that promote private sector preparedness, including disaster management, emergency management and business continuity programs.

The purpose of the PS-Prep™ Program is to enhance nationwide resilience in an all-hazards environment by encouraging private sector preparedness. The program will provide a mechanism by which a private sector entity—for example, a company, facility, not-for-profit corporation, hospital, stadium, university—may be certified by an accredited third party establishing that the private sector entity conforms to one or more preparedness standards adopted by DHS. More information is available at <http://www.fema.gov/privatesector/preparedness>.

The Individual and Community Preparedness Division has identified organizations that provide resources for business preparedness. A list of these resources is available on the Citizen Corps web site at <http://www.citizencorps.gov>.

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“ History provides a clear picture of...the importance of business recovery to community resilience. ”

INTRODUCTION

From a pragmatic standpoint, a disaster is anything that can cause a disruption in the normal operation of a business (Wallace & Webber, 2004). Business preparedness, often referred to as business continuity, encompasses a variety of elements, including employee and workplace disaster plans (e.g., evacuation protocols, telecommuting capabilities and policies), environmental security, information technology security, and redundancy plans. To ensure business continuity, business leaders must consider all of the resources needed to keep their businesses running. In the simplest sense, these resources include the health and safety of their human resources, the integrity and stability of their product or commodity resources, the security of buildings and the physical environment, and the functioning of their information technology.

History provides a clear picture of the impact disasters have on businesses, as well as the importance of business recovery—especially small business recovery—to community resilience.

METHODOLOGY

The Citizen Preparedness Surveys Database

In an effort to explore the landscape of preparedness research, FEMA’s Individual and Community Preparedness Division has amassed a database of research surveys conducted since September 11, 2001, on personal, school, business, and community preparedness. The Citizen Preparedness Surveys Database is available on the Citizen Corps Web site at <http://www.citizencorps.gov/ready/research.shtm>.

The business surveys included in the Citizen Preparedness Surveys Database and analyzed for this CPR are surveys administered to private sector business personnel (i.e., executives, employees, and administrative personnel) to the exclusion of government agencies and healthcare facilities. Any organization, including government, nonprofit organizations, and community-based organizations, may have conducted or sponsored the research. A total of 37 business surveys were identified and reviewed. Unless otherwise noted, all survey dates refer to the dates the studies were fielded.

In addition to the resumption of government services and utilities, long-term recovery following a catastrophe depends on small business. This is especially true in urban areas, where corner delis, dry cleaners, and other small businesses provide vital services that make life possible for businesses and residents. More than 4,400 small businesses, employing some 43,500 workers, were located in the immediate vicinity of the World Trade Center when the September 11 attacks occurred. Of those, more than 700 small businesses, employing 8,005 workers, were destroyed in the World Trade Center complex alone. In the greater New Orleans region, more than 72,000 businesses were damaged by Hurricane Katrina, of which 85 percent had fewer than 19 employees. In Mississippi, an estimated 70,000 businesses were either completely destroyed or severely damaged by the storm. (Moss & Shelhamer, 2008)

Research Questions

Citizen Preparedness Review Issue 7 provides analysis of publically available survey data on business continuity and disaster preparedness planning conducted since September 11, 2001.

The following research questions frame the analysis:

- What is the current state of business preparedness research?
- What is the overall level of disaster preparedness of businesses in the United States?
- What are the influencing factors for preparedness?
- What are the perceived barriers?

Types of Surveys Found

During the search process, 37 surveys that specifically studied business continuity planning and management among businesses in the form of business continuity plans (BCPs) and/or disaster preparedness plans (DPPs) were found. Surveys were obtained through systematic Internet searches (utilizing the search engines at www.google.com, www.scholar.google.com, www.bing.com, and the databases at search.EBSCOhost.com) using combinations of key search terms including *business*, *business continuity*, *disaster preparedness*, *emergency preparedness*, *disaster recovery*, *disaster planning*, *crisis preparedness*, and *terrorism preparedness*. In order to capture the widest range of new surveys on the H1N1 pandemic, we also included the following search terms: *H1N1*, *swine flu*, *influenza*.

The surveys ranged from short, single-item weekly surveys on the website of the academic *Disaster Recovery Journal*, open to anyone visiting the site, to in-depth surveys of business leaders and opinion makers across the globe, commissioned by major corporations. The majority of the surveys were conducted online. Most of them used e-mail addresses from professional organizations and subscription lists from business continuity industry publications to solicit participants, though some were simply posted on business continuity or IT Web sites for users to complete. Several surveys were administered by telephone. One survey, the AFP/JPMorgan Chase Business Continuity Survey, was administered via intercept at the annual Association of Financial Professionals Conference. A few survey reports did not include any information on their methodology.

Business Survey Sponsors

The sponsors of the surveys were primarily corporations and consulting agencies providing products and services for businesses to aid in the disaster preparedness or recovery processes, though several were academic research centers, and two were sponsored in whole or in part by the American Red Cross in collaboration with other organizations. Several surveys were conducted by both online and print business and specialty professional publications (such as the *Disaster Recovery Journal*, *InformationWeek*, *Computerworld*, and *Continuity Central*) at the behest of corporations.

“ The rate and complexity of emergent events that cause significant interruptions in business activities are increasing. ”

Characteristics of Survey Respondents

The sample sizes in the surveys ranged from 73 respondents working in human resources in the Omaha, NE, area (Smith et al., 2007) to 5,000 small business professionals in a survey conducted by a research agency (TNS-NFO) for Office Depot (Business Wire, 2008). Most survey respondents, however, were working in medium to large companies and most surveys had between 200 and 700 respondents. Although there is no standard definition for small, medium or large businesses, market research tends to use revenue size or numbers of employees as a gauge. For example, the DRJ/Forrester survey categorized business size based on employees: up to 999 (small), 1,000 to 4,900 (medium), and 5,000 and more employees (large). The geographic reach of the surveys also ranged widely, from local surveys of metropolitan areas and counties to a few that were international in scope. Survey respondents also represented a range of roles within their organizations from board level executives to non-managers. Many surveys were directed to IT or other professionals tasked with disaster preparedness/business continuity planning, in particular, those surveys sent to members of professional associations—such as the Society for Human Resource Management’s [SHRM] 2005 Disaster Preparedness Survey Report [Fegley & Victor, 2005]—or those surveys where respondents were solicited from a journal, magazine, or Web portal’s readership, such as the *Disaster Recovery Journal’s* The State of Disaster Recovery Preparedness Survey [Balaouras, 2008].

Publication and Distribution of Survey Results

The survey results were published in many different venues. Some were included in press releases highlighting new products or services, while others were described in academic journals or mainstream business publications. Survey results released in business trade publications and journals were intended for a business audience segmented into several broad categories: corporate executives, IT personnel, business continuity professionals, and human resources (HR) personnel. Since some materials contained calls to action and suggestions for legislation to meet the stated needs of businesses from the survey findings, it is likely that the results were intended for use in advocacy and lobbying efforts with policymakers and government employees in regulatory roles. Often, survey authors used the discussion/conclusions sections of their findings to point out the need and rationale for investment to create and implement BCPs and, therefore, appeared to be aimed at financial decisionmakers in those areas.

Context for Surveys

Several surveys noted in their introductions that the rate and complexity of emergent events that cause significant interruptions in business activities are increasing, and the authors of the surveys in question attribute this rise to macro-level factors such as:

- The adoption of new technologies for globalization of trade, high-speed communication and travel, which introduce new vulnerabilities into business operations
- Global climate change, resulting in more extreme weather

- Political instability, leading to a heightened risk of terrorist attacks
- Population densities and ease of travel, leading to the rapid spread of illnesses
- More localized threats, such as the threat that power outages represent to organizations that conduct much of their business online
- Human error on the part of employees.

Primary Focus Areas

The most common question asked among all the surveys was what, if any, preparations business are currently making for an unpredictable disruptive event. Examples of different phrasings of this question are “Does your organization have a business continuity plan?”, “Does your business have a formal and documented disaster recovery plan in place?”, and “Has your IT department implemented business-continuity planning or improved disaster preparedness [this year]?”

Another focus area of the surveys was “phase analysis,” the orientation of questions on specific phases of a disaster: preparedness and mitigation measures prior to an emergent event, continuity during a disaster, or recovery of data and normal business operations afterward. Mayer et al. provide a useful division of such stages into “phases” with the following definitions: Phase 1, which encompasses disaster planning and prevention in order to minimize the impact of a disaster on an organization; Phase 2, in which organizations use the resources they have to respond to a crisis to minimize damage; and Phase 3, which includes recovery of business data and processes as well as the process of examining disaster response for lessons for future practice and preparedness.

Most surveys examined preparedness in Phase 1; those that looked at Phase 2, continuity in the immediate aftermath of a disaster, focused on the preparations that had been made. Only a few surveys included questions that asked businesses that had experienced disasters about their experiences in Phase 3 and resulting changes in preparedness practice.

Types of Disasters Addressed

While all surveys addressed the existence of BCPs and/or DPPs, the types of hazards they addressed and the specific situations and conditions that would constitute a “disaster,” “emergency,” “disruption” or “crisis” varied. Across the surveys, the hazards most frequently addressed were: nonspecific disasters and crises, natural disasters (hurricanes, floods, fires), IT failures (catastrophic data loss, cyber crime), and pandemic influenza. The periodic surveys conducted by Strohl Systems and Contingency Planning and Management-Global Assurance (Continuity Central, 2006) categorize unpredictable events leading to business disruption into natural, intentional, and accidental crises and disasters. While IT and data protection and recovery for business continuity are a primary focus of survey research, much recent research has also examined business response to and preparedness actions around the H1N1 influenza pandemic.

Analysis Limitations

While the surveys examined provided useful information, several constraints limited their potential for general conclusions. Much of the information collected on survey results was from press releases and reports that offered only limited information on the

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questions asked, answers received, response rates, and respondent demographics. This may be due to the fact that many surveys were undertaken by businesses that consider the findings to be proprietary information. While this is an understandable position, without a more complete context of the data presented, the business preparedness analysis presented here is necessarily limited. For example, there may be a response bias if businesses that have no plans in place fail to participate in the survey, resulting in an overly large estimate of the proportion of companies stating they have conducted planning. Another potential bias may have occurred in the surveys conducted by businesses that offered business continuity and disaster preparedness services and products; the potential for a conflict of interest exists when organizations present the data they collect in a manner that overemphasizes the need for their products, even when no such conflict exists. For example, many of the surveys focused primarily or entirely on IT continuity, since this is an area where there is a large market and established infrastructure.

ANALYSIS AND FINDINGS

Perception of the Need for Preparedness Planning Is Rising

Awareness of the need for disaster preparedness planning is, on the whole, rising among businesses. While all of the surveys included in this analysis took place after 2001, and therefore in a post–September 11 context, perception of vulnerability to disaster has increased over the past 8 years as demonstrated by surveys repeated within this timeframe. In the 2005 SHRM survey report (Fegley and Victor,

2005), HR professionals were slightly less likely to feel that their organizations were well or very well prepared for a disaster or crisis than the same survey conducted in prior years. Between the baseline study conducted by Envoy WorldWide in May 2004 and a follow-up survey in 2005, business continuity professionals reported a 73 percent increase in “the view that natural disasters are an extreme threat to businesses” and an 11 percent increase in fears surrounding data security.

The surveys identified a diverse range of perceptions of the impact of disaster-related disruptions: employee productivity (cited by 62 percent of respondents), profits (40 percent), and damage to customer relationships (38 percent) (The Veritas Disaster Recovery Survey, performed by Harris Polling, 2004); customer support, corporate financials, e-mail services (SteelEye Technology Inc.’s Continuity Index Survey, 2006); general cyber and Internet security (AT&T Business Continuity Study, 2007); and the cost in dollars of downtime (Continuity Central, 2006; Balaouras, 2008; Emerson, 2006).

Interestingly, of those companies with BCP/DPPs, two surveys found that around a third (38.4 percent in the Strohl survey, and 28 percent in the DRJ/Forrester survey [Balaouras, 2008]) have had to activate their plans.

Awareness of Vulnerability May Not Translate Into Action

Despite a general increase in the importance of preparedness, many companies have still not taken action. The Emerson poll (Emerson, 2006) found that 21 percent of large U.S. businesses (defined as those

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with more than \$50 million in annual business revenue) have not made room in their budgets for BCP and DPP activities, and the Semi-Annual Business Continuity Survey assessing Bay Area business disaster preparation and recovery (Feldman & Eves, 2007) found that while companies state that they take BCP and disaster preparedness seriously, most are only in the early stages of plan implementation. Among small businesses, an Office Depot survey (Business Wire, 2008) found that 40 percent of respondents admit they are not ready for a disaster and one-third state that they have no current plans to begin preparedness activities.

Positive Relationship Between Focused Resources and Level of Preparedness Activity

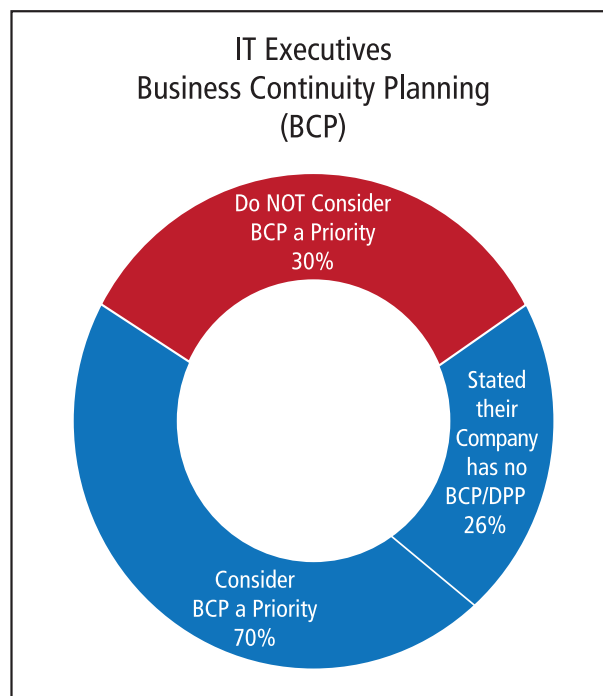
Those surveys that sampled specific groups working on business continuity and disaster preparedness planning found a fairly high level of preparedness activity; in virtually every study targeting those with a role in business preparedness planning, a majority of respondents stated that their organizations did have codified BCPs/DPPs. Those surveys that addressed a more general business audience, rather than those specifically working in continuity and preparedness planning, found much lower levels of disaster preparedness planning. This overall finding is supported by multiple surveys that demonstrated a higher level of both planning activities and a higher perception of vulnerability among those engaged in preparedness planning than by executives and decisionmakers working in other areas.

Respondents who work in the area of continuity and disaster preparedness seem

to be well aware of the existence of the gap between vulnerability and preparedness, and the implications it may have for their businesses. Most surveys asked such respondents how well prepared for a disaster they felt their organization was. More respondents in surveys conducted by or in collaboration with business continuity trade journals felt that their organizations were well prepared than did respondents in other surveys; this may reflect the benefit of assigning responsibility for disaster preparedness within the organizations and also the possibility of a self-selection bias, since individuals who are already concerned with business continuity and disaster preparedness may be more likely to read related trade journals and magazines and respond to their surveys.

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Figure 1. Priority of Business Continuity Planning Among IT Executives in the United States. AT&T, 2007.



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IT Professionals Have Higher Awareness of Vulnerabilities Than Those in Other Fields

IT professionals also often perceive that their companies are more vulnerable to disaster and disruption than executives with other responsibilities—52 percent of IT professionals versus 14 percent of executives in other fields said their enterprise data was “very vulnerable” in the event of a disaster in an EMC Corporation/RoperASW survey (McMillan, 2003). A 2007 telephone survey of 1,000 IT executives in 10 U.S. metropolitan regional areas found that 70 percent of IT executives considered business continuity planning to be a priority, 30 percent did not consider such planning to be important, and 26 percent stated their companies had no BCP/DPP whatsoever (American Telephone and Telegraph, 2007). These reported differences support the suggestion that surveys targeting only certain types of employees may not capture the full range of corporate attitudes towards preparedness or may only focus on one aspect of preparedness planning.

Business Preparedness Is Often Focused on Data Systems

The surveys in this review found that the most common continuity measures in place, across industries, sizes of companies (by both revenue and employees), and geographic location were those intended to protect data storage and electronic communications. Such preparations include offsite data storage, frequent data backup, creation and maintenance of redundant e-mail servers offsite, and Internet security measures.

These findings suggest that companies may be more prepared for disasters and

disruptions in specific areas, such as data backup and recovery, than in overall operations. The DRJ/Forrester survey (Balaouras, 2008) found that 52 percent of respondents (Disaster Recovery Journal readers) felt that their organizations were very prepared or prepared to recover their data center in the event of a disaster, 40 percent felt somewhat prepared, and only 8 percent felt unprepared. In contrast, in the CCPR survey of a random sample of medium and small businesses in the New York City area (Light & Wheeler-Smith, 2008), only 20 percent of business respondents ranked their organizations as very ready for crises in general, and a Strohl Systems/CPM-Global Assurance survey in May 2006 (Continuity Central, 2006) found that when asked “How confident are you that your [disaster preparedness] plan will work as written should it need to be activated?,” only 24.3 percent of respondents were very confident.

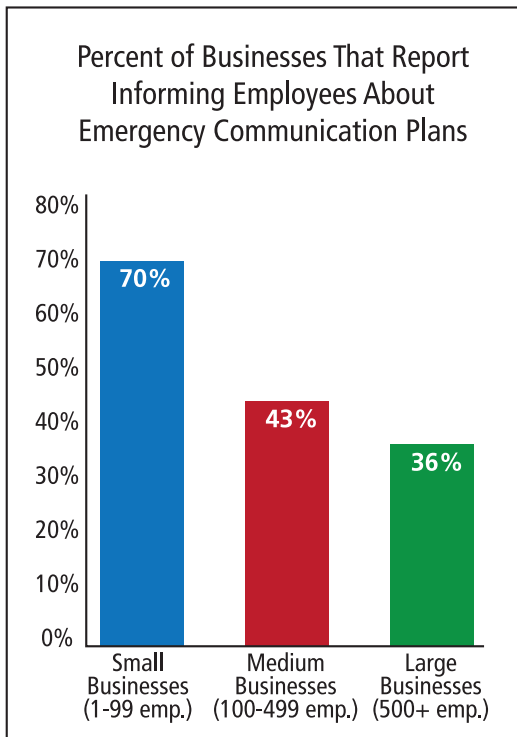
Typical Plan Components

Business impact analyses (BIAs) are a fundamental part of developing BCPs and DPPs. In Continuity Central’s Business Impact Analysis survey report (2003), the purpose of the BIA is explained as “To identify the impacts resulting from disruptions and disaster scenarios that can affect the organisation and techniques that can be used to quantify and qualify such impacts...[and] [e]stablish critical functions, their recovery priorities, and inter-dependencies so that recovery time objective can be set.” This survey found that a variety of methods are used to create BIAs: survey questionnaires, one-on-one interviews, structured templates, workshops, meetings, and onsite assessments. The

Simply Continuous survey (Feldman & Eves, 2007) found that while 27 percent of respondents indicated that their company had conducted or updated a BIA for primary business processes in the last 12 months, 29 percent of respondents did not know if the company had taken these steps (the report qualified this by stating that the high percentage of “do not know” responses may reflect unfamiliarity with the term “business impact analysis” rather than the lack of such assessments).

Companies typically view themselves as more vulnerable to power outages and cyber attacks than they do to natural disasters, terrorist attacks, or pandemic illnesses. Despite rating these types of disasters with a relatively low vulnerability, however,

Figure 2. Percent of Businesses That Report Informing Employees About Emergency Communication Plans. SHRM Survey Report, Fegley & Victor, 2005 .



many companies have incorporated limited preparedness measures for these types of disasters, though not necessarily as part of a formal plan. The SHRM survey report (Fegley & Victor, 2005) noted that a large majority of HR professionals had some form of evacuation/fire emergency plan in place, and half had shelter-in-place plans. Another common plan component found in the survey data was a manual employee phone tree for notification of an emergency. Envoy WorldWide found that those companies relying on a manual phone tree to contact employees dropped from more than 90 percent in their 2004 survey to 40 percent in 2005. This may reflect a shift to the use of automated telephone and e-mail notification systems. Other plan components that pertain to employees that are commonly included in BCPs and DPPs are alternate worksite options and provision of a website or an emergency telephone number where employees can check the status of business operations.

Measures Taken May Be Insufficient

Even those companies that consider themselves generally well prepared may not be, due to the lack of formal procedures, failure to test and/or update existing plans, and incomplete information for and training of employees. A survey of small- and medium-sized businesses in New York City found that while 85 percent had made some preparations for preparedness, only 23 percent have a formal written program in place (CCPR/ICEP/ ARCGNY, 2006). Plans may exist but may not be regularly tested or updated, and may not be integrated into regular management processes; a 2006 Hewlett Packard survey of 340 chief information

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“Businesses that are located in regions more susceptible to natural disasters, such as coastal areas and the Midwest, are far more likely to see themselves as vulnerable and to have planned for disasters.”

officers and IT managers around the world found that only 26 percent regularly review and test their plans. The DRJ/Forrester survey (Balaouras, 2008) found in its 2007 survey that only 40 percent of businesses reported testing their plans and 25 percent said they never do. Their research also indicated that those tests that are conducted are often only partial and, therefore, are unlikely to provide an accurate picture of a business’ response in a true emergency.

Businesses vary in communicating their preparedness plans to employees. The SHRM survey of non-management employees found that 70 percent of small businesses (those with 1–99 employees) have informed their employees about their emergency communication plans, compared to only 43 percent of medium-sized (100–499 employees) companies and 36 percent of large companies (500 employees or more). In the LogMeIn survey, 87 percent of small business respondents knew whether or not their company had a flu-related business continuity plan in place, compared with 81 percent of large business respondents and 71 percent of medium business respondents.

The survey results identified several common methods of informing employees of plan components, including posting information in the workplace, holding all-staff meetings to communicate the plan, sending all-staff e-mails to communicate plan information, including plan information in employee handbooks, listing the information on the company’s website or intranet, and providing a magnet, wallet card, or other method employees can carry or bring home that contains plan information (Fegley & Victor, 2005).

Beyond simply communicating the plan, the survey data indicate that those

businesses that have BCP/DPPs often do not offer training in the plan to their employees. While the SHRM survey report (Fegley & Victor, 2005) found that a limited number of organizations offered cardiopulmonary resuscitation, first aid, and organization-specific disaster response trainings to their employees, the Simply Continuous survey (Feldman & Eves, 2007) found that only 29 percent of businesses provide whole or partial business continuity training to employees.

FACTORS INFLUENCING PREPAREDNESS PLANNING

The survey results identified several factors that may affect preparedness planning, which are remarkably similar to those identified for individual disaster planning.

Real-World Events

Those businesses that are located in regions more susceptible to natural disasters, such as coastal areas and the Midwest, are far more likely to see themselves as vulnerable and to have planned for disasters, according to an Office Depot survey of 5,000 small business owners (Business Wire, 2008). Actual prior experience of a disaster is also a strong motivating factor to create and implement plans for crises. The CCPR survey (Light and Wheeler-Smith, 2008) revealed that those organizations that had experienced some form of external crisis had much higher levels of readiness than those that had not, and those businesses that had sustained losses due to Hurricane Rita in Southwest Texas state that they are now taking more preparedness measures (Mayer et al., 2008).

Witnessing the impact of major disasters that happen in other parts of the country can also spur additional creating and testing of plans—50 percent of respondents in an AFP/JP Morgan Chase Business Continuity Survey responded “yes” to the item “Has your organization in the past month tested (or does it plan to test) its business continuity plans as a direct result of Hurricanes Katrina and Rita striking the Gulf Coast?” As part of their periodic surveys immediately before and after Hurricane Katrina, the Strohl Systems and Contingency Planning & Management-Global Assurance (Continuity Central, 2006) found that after Hurricane Katrina, two-thirds of businesses had reviewed and updated their disaster recovery procedures.

Concern about pandemic influenza has also had a strong motivating impact on business preparedness. The Deloitte Center for Health Solutions’ 2005 Business Preparations for Pandemic Flu Survey and its 2006 Year Two Pandemic Preparedness Survey detected a noticeable increase (from 57 percent to 73 percent) in the number of businesses that felt that avian flu represented a potential threat to U.S. companies.

Reported preparedness for pandemic influenza among survey respondents rose even higher in 2009 when the H1N1 pandemic made front-page news and impacted businesses and industry worldwide. A Business Roundtable survey from late 2009 revealed that 95 percent of respondents stated that their companies had flu-related business continuity and crisis plans in place. The survey also found that in the 6 months following the H1N1 outbreak 89 percent of companies with business continuity and crisis plans had tested, activated, or updated those plans. Similarly high levels of planning were found

in ORC Worldwide’s Spring 2009 survey, where 84 percent of the companies surveyed reported that they had some form of flu-related business continuity or pandemic preparedness plan. A high level of perceived vulnerability was also found: In a Harvard School of Public Health survey conducted in July and August 2009 (Blendon et al. 2009), 52 percent of respondents stated that they believed there would be a widespread and more severe outbreak of influenza A (H1N1) in the fall, and 84 percent worried that such an outbreak would negatively affect their business.

It is interesting to note, however, planning specifically for pandemic influenza seems to vary markedly by company size. In a 2009 survey, the firm LogMeIn found that while 49 percent of respondents affiliated with large-sized businesses stated that their companies had a flu-related business continuity plan in place, only 19 percent of small businesses responded that their own firms had made such preparations.

Perceived Motivations and Benefits of Preparedness Planning

In the DRJ/Forrester survey (Balaouras, 2008), respondents cited their perception of fiduciary responsibility to stakeholders as the primary motivating factor for the creation of plans. The Center for Catastrophe Preparedness & Response, the International Center for Enterprise Preparedness, and the American Red Cross in Greater New York’s (CCPR/ICEP/ARCGNY, 2006) survey of small and medium-sized businesses in New York City identified the following motivating factors for business that had undertaken some steps to prepare: a desire to protect their employees and business operations (69

“ Concern about pandemic influenza has also had a strong motivating impact on business preparedness. ”

“When asked why they have not made preparedness plans, the explanations generally fall into three general areas: perceptions of high cost, staff resources and lack of information, and low priority.”

percent), a desire to avoid legal liability (51 percent), the need to protect the businesses’ reputations (49 percent), and compliance with regulatory requirements (46 percent).

Some surveys identified a specific economic or competitive benefit related to preparedness planning in Envoy WorldWide’s White Paper on Trends in Business Continuity and Risk Management, 66 percent of the respondents (business continuity professionals) stated that they had noticed increased interest in their business continuity plans from their respective customers, and 68 percent noted that they have encountered specific requirements for BCPs in requests for proposals. The Strohl / CPM poll (Continuity Central, 2006) found that 12.3 percent of respondents stated that “Our rates have been decreased due to a plan our insurers viewed as comprehensive” and 0.8 percent stated that “Our rates have been increased due to a plan our insurers viewed as less than adequate.”

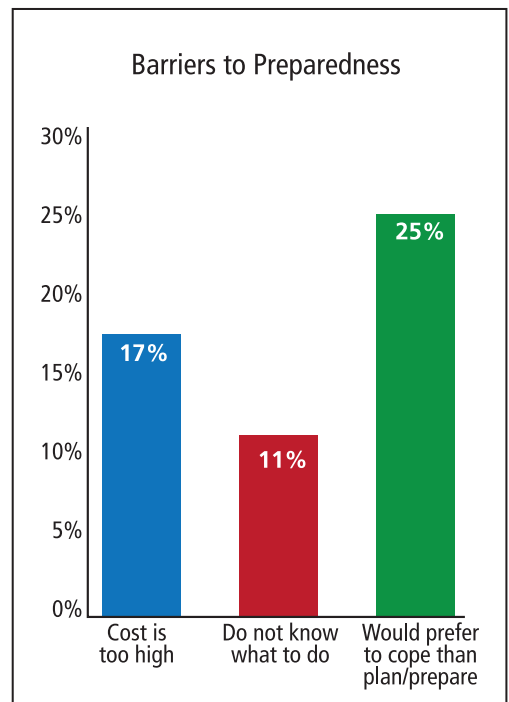
Cost-Benefit Analysis

The Office Depot survey of 5,000 small business owners made the interesting discovery that 61 percent of respondents who have a disaster protection plan in place agreed with the statement “I’ve realized that it doesn’t have to cost a lot of money or time” when asked to explain why they have made preparedness plans. This may indicate that small businesses that have not prepared are unaware that many preparedness activities may not involve high costs in terms of money or staff resources.

Barriers to Preparedness Planning

When asked why they have not made preparedness plans, the explanations generally fall into three general areas: perceptions of high cost, staff resources and lack of information, and low priority.

Figure 3. Reported Reasons for Not Taking Steps To Increase Preparedness Within Small Businesses. Office Depot/Business Wire, 2008.



Perceptions of High Cost

The perception that creating and implementing BCP/DPPs incurs high costs is a major barrier to implementation of plans. In SteelEye Technology’s Continuity Index Survey of 184 C-level executives and IT technicians with active roles in their organizations’ business continuity strategies, cost was rated as a primary limiting factor. In the Office Depot survey, 17 percent of small business respondents indicated expense was too great and in the CCPR/ ICEP/ARCGNY survey of small and medium-sized businesses in New York City,

41 percent of businesses without plans in place said that they lacked the financial resources and staff to complete one.

Many surveys asked about the amount companies spend on disaster preparation and recovery planning. These terms are often couched in dollar amounts, and different surveys examine different sized companies; therefore, it is hard to make a general statement about typical allocation of fiscal resources. A broad range of amounts allocated were cited, likely indicating a diverse understanding of what needs to be done and what activities and procedures fall within the scope of “disaster planning.”

Staff Resources and Lack of Information

The barriers of insufficient staff resources and lack of information are often cited together in surveys. Though most large corporations have dedicated business continuity staff, many small and medium-sized businesses do not, and express confusion regarding what steps to take. In the Office Depot survey, 11 percent of small businesses claim that they have not made preparedness plans because they do not know what to do, and in the CCPR/ICEP/ARCGNY survey, 46 percent of respondents say they do not have enough information to create a plan. This lack of knowledge extends to the potential benefits of preparedness planning. In the SteelEye survey, lack of a compelling “business case” was cited as a barrier to planning.

Low Priority

Companies frequently assign a low priority to preparedness, some are fatalistic about the ability to make effective preparations

and plans (the Office Depot survey found that 25 percent of small business owners described their attitude toward disaster preparedness as “live and let live” and stated that they would prefer to cope with a disaster when it occurs rather than plan for it), and, in the words of the AT&T Business Continuity Study, “Some companies may have their ‘heads in the sand’ when it comes to the probability of disasters.”

Furthermore, the importance of business preparedness appears to be quickly minimized when executives are confronted with other business concerns. For example, during the severe economic downturn of 2008–2009, companies concerns for core business operations came to the fore, relegating business preparedness to a very low level of concern. In a global survey by Lloyd’s of London and the Economist Intelligence Unit of board-level executives (2009), the risks that respondents were most concerned about were cost and availability of credit, insolvency risk, loss of customer orders, currency fluctuations and cancelled orders (see Figure 4). Disasters, natural hazards, and pandemics ranked far behind more immediate financial concerns; in descending priority, cyber attacks were ranked 20th, flooding 30th, terrorism 31st, pandemics 34th, with other natural hazards assigned even lower priorities.

Figure 4. Global Risk Chart

Listed in order of concern and level of preparedness

1. Cost and availability of credit
2. Currency fluctuation
3. Insolvency risk
4. Loss of customers
5. Major asset price volatility
6. Cancelled orders
7. Risk of excessively strict regulation
8. Corporate liability
9. Reputational risk
10. Project delivery risk
11. Abrupt interest rate change
12. Risk of poor/incomplete regulation
13. Increasing protectionism
14. Failed investment
15. Fraud and corruption
16. Information security breach
17. Price of materials inputs
18. Theft of assets/intellectual property
19. Rapid technological change
20. Cyber attacks
21. Workforce health
22. Talent and skills shortages
23. Supply chain failures
24. Succession risk
25. Industrial/workplace accident
26. Energy security
27. Piracy
28. Strikes
29. Pollution (caused by business)
30. Flooding
31. Terrorism
32. Currency inconvertibility
33. Climate change (impact on business)
34. Pandemic
35. Expropriation of assets
36. Earthquake
37. Drought
38. Riots and civil commotion
39. Windstorm (e.g., hurricane or typhoon)
40. Abrupt regime change
41. Wildlife

Lloyd’s of London and the Economist Intelligence Unit (2009)

“ Despite the need for greater research, clear strategies to increase business preparedness are emerging. ”

SUMMARY

Business continuity and preparedness survey research among businesses, large and small, appears to be on the rise. But in light of limitations associated with existing survey research—limited access to proprietary findings, the potential for conflict of interest in surveys conducted by business continuity service providers, and a heavy focus on information technology—additional research is needed to more accurately measure the extent of business preparedness, as well as to fully explain the drivers and barriers of such activity.

This field of research should continue and expand to include:

1. Surveys to a broader, general business audience and more open data
2. Greater analysis of differences between small, medium, and large businesses
3. Geographic segmentation relative to hazard risk and urban vs. rural considerations
4. Business sector analysis, including privately owned critical infrastructure
5. Interconnectedness of business continuity efforts with community emergency operations plans.

Despite the need for greater research, clear strategies to increase business preparedness are emerging:

- **Leverage real-world events to emphasize the importance of business continuity planning.** Real-world events have a clear motivating effect on preparedness. Government, media, and business and trade associations should promote preparedness directly following actual events. Effective risk management communications include positive reinforcement through success stories, rather than exclusively emphasizing loss and destruction.

- **Underscore the importance of employee awareness, training, and exercises.** Even organizations that have BCPs and DPPs fail to inform employees adequately. Employee preparedness is a critical element of business preparedness to include participatory planning, workplace supplies, training, and drills/exercises.
- **Develop tools and information to promote the business case for preparedness.** The research shows that many organizations are unfamiliar with the relatively minor costs of many preparedness actions. Outreach to business should include examples of cost-benefit analysis and underscore low cost actions.
- **Broaden the target audience and understanding of comprehensive business preparedness.** Business preparedness is an enterprise-wide concern. Messages on business preparedness should be directed to senior leadership and decision makers. While data storage and IT protections are important, the health of the organization is also dependent on the health and well-being of employees, service and supply providers, and community services.
- **Promote the role of businesses in community preparedness.** As an integral element of any community, businesses have a role in community preparedness. Local business associations and chambers of commerce should develop relationships with emergency managers and other emergency service providers to integrate non-governmental assets and resources into government plans and protocols. Based on the 2009 Citizen Corps National Survey, 48 percent of people who reported taking preparedness training the past 2 years indicated the reason they took the training was because it was mandatory for their job or for school.

DHS SUPPORT FOR BUSINESS PREPAREDNESS

As directed by Title IX of the Implementing Recommendations of the 9/11 Commission Act of 2007, DHS is developing the Voluntary Private Sector Preparedness Accreditation and Certification Program.

PS-Prep™ is a voluntary program of accreditation and certification of private entities using standards adopted by DHS that promote private sector preparedness, including disaster management, emergency management, and business continuity programs.

The purpose of PS-Prep™ is to enhance nationwide resilience in an all-hazards environment by encouraging private sector preparedness. The program will provide a mechanism by which a private sector entity—a company, facility, not-for-profit corporation, hospital, stadium, university—may be certified by an accredited third party establishing that the private sector entity conforms to one or more preparedness standards adopted by DHS.

Following a series of regional public meetings and the incorporation of public comments, the three standards were approved in June 2010, based on scalability, balance of interest and relevance to PS-Prep™:

- ASIS International SPC.1-2009: *Organizational Resilience: Security Preparedness, and Continuity Management System—Requirements with Guidance for use (2009 Edition)*. Available at no cost.
- British Standards Institution 25999 (2007 Edition): *Business Continuity Management. (BS 25999:2006-1 Code of practice for business continuity management and BS 25999: 2007-2 Specification for business continuity management)* The British

Standards Institution is making both parts available for a reduced fee of \$19.99 each.

- National Fire Protection Association 1600: *Standard on Disaster/Emergency Management and Business Continuity Programs, 2007 and 2010 editions*. Available at no cost.

On September 30, 2010 DHS announced a key milestone in the Department's efforts to develop a robust small business preparedness plan: soliciting public comment on a private sector readiness certification program specifically tailored to the needs of small businesses. The Federal Register Notice announced a proposed plan for implementing separate classifications and methods of certification for small businesses under PS-Prep™. This first-of-its-kind program will tailor voluntary private sector preparedness certification standards to specifically meet the needs and capabilities of America's small businesses.

"Ensuring America's small businesses have the critical information and training they need to better respond to disasters will strengthen the entire nation's preparedness and resilience," said Secretary Napolitano.

More information on PS-Prep™ is available at <http://www.fema.gov/privatesector/preparedness>.

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**The Citizen Corps mission is to bring
community and government leaders together
to involve community members
and organizations in
all-hazards emergency preparedness,
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