Contingency Planning and Disaster Recovery

A Small Business Guide

Donna R. Childs
Stefan Dietrich

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Contingency Planning and Disaster Recovery
ABOUT THE AUTHORS

Donna R. Childs is the founder, president, and chief executive officer of Childs Capital, LLC, a Wall Street firm dedicated to poverty alleviation through economic development. She holds a B.S. from Yale University, an M.A. in International Economics and Finance from Brandeis University, and an M.B.A. from Columbia Business School. Prior to establishing Childs Capital, she had 15 years of experience in finance and risk management. She began her career as a research associate in the finance department at the Harvard Business School, was an investment banker in the financial institutions group of Goldman, Sachs & Company, and, more recently, was a director and member of senior management of the Swiss Reinsurance Group in Zurich, Switzerland. A recognized authority on risk finance, Ms. Childs was the associate editor of Risk Financier and a frequent speaker at reinsurance industry conferences.

Stefan Dietrich majored in Computer Solutions and Aerospace Engineering as an undergraduate, and received a diploma and doctorate, summa cum laude, from the University of Stuttgart in Germany. He was a lead developer of the hypersonic aircraft program of the German National Aerospace Establishment in Göttingen, Germany, and then served as the lead developer for one of the U.S. National Science Foundation’s “Grand Challenge” supercomputer projects undertaken at Cornell University, then one of the world’s largest and most complex computer systems. As a senior executive at Deutsche Bank, Dr. Dietrich contributed to the disaster recovery and contingency planning for one of the largest trading floors in Europe as a consequence of the bomb attack on Bishopsgate in London. Most recently, he served as the chief operating officer and executive vice president of a technology start-up company in New York City. He currently advises small businesses with respect to their information technology infrastructures and disaster recovery procedures.
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Launching my own business is the fulfillment of a life-long dream. It represents the opportunity to chart one’s own course, to do meaningful work, to fully develop one’s creative talents, to encourage the potential in others, to leave a legacy. During the course of my entrepreneurial adventure, I have had the privilege of teaching in Russia under the auspices of the United States Agency for International Development. I have been so fortunate as to learn from the experts of the United Nations Development Program in Latin America. I have benefited from the cumulative experience of the faculty and my classmates at the Executive M.B.A. Program of Columbia Business School who have generously shared their knowledge to assist my enterprise and, in particular, Professors Charles W. Calomiris, Murray Low, Cliff Schorer, Joe Flicek, Lynn Russell, Peter Garrity, and Trevor Harris. I am grateful to the faculty and staff of the Graduate School of International Economics and Finance at Brandeis University, and in particular, Dean Peter Petri, Professor Rachel McCulloch, and Professor Ben Gomes-Casseres. I have been coached and advised by some of the sharpest financiers on Wall Street at Goldman Sachs and at 85 Broads, a networking association of Goldman alumnae.

I have enjoyed all of these experiences and more because I have two very loving parents, who made numerous sacrifices for my education so that these opportunities were available. I would like to thank my mother, Dianne M. Childs, and my father, Donald R. Childs, Ph.D, whose hard work and personal sacrifices gave me the education that has opened up the world. I am assigning part of my share of the authors’ royalties to endow a program in the name of my dad at the Massachusetts Institute of Technology, so that academically gifted young men and women may benefit from the same opportunities my dad made available to me. I hope that my dad, who is retired, will enjoy mentoring those students and sharing with them his enthusiasm for the natural sciences as he did with
me! My dad never missed a parent-teacher’s meeting, never missed a science fair or a spelling bee, sacrificed his Saturdays to coach my soccer and Little League teams, and offered every possible encouragement to me. I have very fond memories of touring college campuses with my parents during my senior year of high school, as we imagined what my future would be. I wish every young woman could have such a wonderful dad to instill in her confidence and optimism.

I appreciate the encouragement of Rick Lipkin, Calanit Dovere, and Ravi Gupta. I would also like to thank my mentors: Rosalind Gilmore, former Director of Regulation of Lloyd’s of London; Robert Goodman, Managing Director and Head of the insurance investment banking practice at Lazard Frères; David M. Meerschwam, Managing Director of Goldman Sachs; Reuben Jeffery III, Managing Director of Goldman Sachs; Jay Novik, former Vice Chairman, Swiss Re New Markets; Peter Hügele, the recently retired Chief Investment Officer of the Swiss Reinsurance Company; Adrian Sülzer, Rolf Hunziger, and Andreas Bachofner, all senior executives of the Swiss Reinsurance Company; and Janet Tiebout Hanson, the founder of 85 Broads. I am particularly grateful to John Whitehead, who was formerly the senior partner of Goldman Sachs. Many members of 85 Broads told me of his generosity in sharing his time and experience to assist younger bankers who sought to launch their own enterprises. Two weeks after the attack on the World Trade Center, he spent a half-day providing his feedback for a community development fund of my company. Not long after that meeting, John Whitehead was appointed the chairman of the Lower Manhattan Redevelopment Corporation.

I must thank the law firm Cadwalader, Wickersham & Taft, which generously provided assistance for a community development fund my company proposed to make available in the poorest communities in New York City. We began that process earlier in 2001, but it assumed a new sense of urgency given the economic losses the city sustained as a consequence of the terrorist attacks. Marissa L. Morelle, Esq., is not only an exceptionally gifted legal counsel, she is also an enthusiastic believer in the project. I owe thanks to both Marissa and to Malcolm Wattman, Esq., a partner of the firm. I am grateful to Jeff Silow, Esq., whose support has been invaluable.

I would like to express my appreciation to Victor Alvarez, Alex Krutov, Brett Lacquercia, Ron Lenore, Anton Prenneis, and Joe O’Connor, my
former business school teammates. Each was a source of encouragement and an absolute joy to work with. Sheck F. Cho has been a most patient editor and I am indebted to him. We began writing our first draft of the manuscript soon after the attack on the World Trade Center, when our lives were still unsettled. We were lucky to have Sheck to guide us through this process. Finally, of course, I must thank Stefan. Writing this book with him has taught me a great deal about information technology that, irrespective of contingency planning, I can immediately adapt to my own business processes.

Donna R. Childs

I would like to thank my parents, Raphael and Rita Dietrich, my sister Rafaela, and my brother Michael for their support throughout the process of writing this book. I come from Göttingen, a university town in Germany with a rich history, and I was scheduled to be in the World Trade Center on September 11. I changed my plans when I heard the explosions that morning and could see from my home what had happened. I cannot imagine my family’s anxiety and worry as they watched events unfold on the television from halfway around the world, until my call relieved their fears. Other parents were not so lucky. I lost a former colleague, Raj Mirpuri, who perished on the top floor of the second tower on that terrible day. His remains were never recovered. I think that my family appreciates my need to write this book to contribute something to respond to this tragedy, perhaps as a way of dealing with the feelings of helplessness that such an event provokes.

I must thank Donna for conceiving of this project. Donna and I have been friends for some time and she read to me daily the newspaper and business press accounts of small business owners in Lower Manhattan whose losses could have been mitigated if they had put in place better contingency plans and insurance coverage. I didn’t think she was serious, but she wrote a query letter to John Wiley & Sons, our favorite publisher, and included a writing sample and an outline of chapters. One week to the day later, Sheck Cho called us and we were off and running.

I must thank Sheck. English is a second language to me, and I suppose technology is a second language to many others, so I am fortunate to have an editor who was willing to converse in all languages until we
could find the right one to get our points across. I also want to thank John Wiley and Sons, for the resources they committed to this book, for their enthusiasm, and for their extraordinary responsiveness.

I must thank Arnie Herz, Esq., for his insights into legal and other matters. Arnie is unlike any attorney I have ever met in that he brings a very constructive problem-solving approach to a discipline that is otherwise known for its narrow focus on conflict and win-lose games. Arnie has a holistic approach to legal issues that is analogous to the holistic approach to information technology issues that I bring to my clients. Our messages are similar: don’t lose sight of your overall objective and remember that technology (or legal strategy) is simply a tool in service of a greater objective.

I want to thank Ian O’Sullivan of Delphos Inc. Craig Goldberg, Senior Consultant for Phone and Networking Solutions, and Lou Constable, Senior System Administrator for Large Scale Systems, were helpful sources of information for certain of the technical sections of the book. Finally, I’d like to thank all of the friends and people I have met during my years in the United States. It has been a fantastic learning experience for me and I echo the sentiments of the French woman who was interviewed on CNN on September 11, 2001 when she said, “Today, we are all Americans.”

Stefan Dietrich
ASSIGNMENT OF AUTHORS’ ROYALTIES

We are assigning a portion of our royalties to JustGive, a 501(c)3 not-for-profit organization whose mission is to connect people with the charities and causes they care about and to increase overall giving. As a central gateway to giving, JustGive provides people with the resources, services, and tools they need to give—whether it’s their money, their time, or their goods. We encourage you to visit JustGive at www.justgive.org.

JustGive is the only public nonprofit organization that passes through 100% of donations to charities, thereby reducing fundraising costs for the charities and increasing the impact of donations. As a JustGive partner, we will pay the transaction costs for a particular category of charitable donations. Visitors to the site can select from categories of charities that match their interests, such as “Overseas Aid” or “Environment” and will view a number of charities, grouped by theme, to which they can contribute. You may find the information about charities dealing with disaster relief to be helpful.
September 11, 2001, is a date that many Americans will treat in the manner our parents’ generation treated the assassination of President Kennedy. Each of us will remember where we were when the attacks on the World Trade Center and the Pentagon occurred, and since these events have altered the course of history, we will almost certainly tell our children of our personal experiences.

We certainly will remember. We were there. Our personal experience of September 11, 2001, was the genesis of this book. I (Stefan) was leaving home to take the train to the World Trade Center stop, but when I heard the explosion and saw what had happened, I remained at home. Certain of my former colleagues were not as fortunate. One of my former co-workers, Raj Mirpuri, died in the World Trade Center that day. I will never forget the memorial service held for him. The family and mourners were all dressed in white, consistent with their religious custom. His parents’ grief was absolutely unspeakable. Raj was an only child, and his death, and the manner of his death, and the fact that his remains have not been recovered, have only compounded their sorrow.

I feared that I would lose many more friends as I watched the catastrophe unfold. My home is an apartment near the Newport-Pavonia PATH station of Jersey City, right on the Hudson River, and affords a spectacular view of Lower Manhattan. Once I realized what was happening, I reached for my camera and reflexively began taking pictures. My emotions were a mix of shock and bewilderment, and fear for the safety of my friends who live and work in Lower Manhattan. At the same time, I knew that I was witnessing a historic event and felt a need to record it in photographs.

I (Donna) live in Battery Park City, the residential neighborhood in the shadow of the World Trade Center. Indeed, Battery Park City was created by the landfill excavated during the construction of the World
Trade Center. Like many of my neighbors, I chose to live in Battery Park City both for the beauty of this community (my apartment affords a view of the Statue of Liberty, Ellis Island, and the Hudson River) and its proximity to the financial district. I am a small business owner, and my company’s offices are located on Wall Street, just a fifteen-minute walk from home. Like most residents of this community, the World Trade Center formed the “anchor” of my neighborhood.

On September 11, 2001, I had a 9:30 A.M. appointment in my office with a former business school classmate, Alex Krutov. On my way to work, I stopped off at a pharmacy in the shopping concourse of the World Trade Center. After the first plane struck the World Trade Center, firefighters and police officers rushed into the towers and began the evacuation. I left the building, and because it was unsafe to walk about, I went home and immediately called the office to advise people of what had happened and to urge everyone to leave the area. I was among the thousands of residents of Battery Park City who were evacuated. Together with my neighbor and his dog, I boarded a New Jersey police boat and crossed the Hudson River to safety. Our community was closed for over two weeks by the Mayor’s Office of Emergency Management, although I was once permitted to re-enter my home during that time, under the escort of a National Guardsman, to retrieve some clothing and personal items.

The next two weeks were extraordinary. Like most Americans, we remained glued to the television set, watching events unfold in New York City and across the world. At the same time, we could see in person what most Americans could see only on their television sets. It was as if we had two screens displaying different images: the television screen displaying images broadcast from around the world and the window on the Hudson River through which we saw, for example, the navy hospital ship, the U.S.S. Comfort, sail up the Hudson River, to make additional medical assistance available. We saw the F-16s flying overhead, securing New York’s airspace. We saw the President’s helicopter, as President Bush arrived to address the rescue workers at the disaster site. We saw, day after day, the ghastly plume of smoke rise from the remains of the World Trade Center, while the rest of Lower Manhattan, which was without electricity, remained in darkness.

When the Mayor reopened Wall Street, I returned to my office from New Jersey, commuting on a new water ferry route that had been estab-
lished following the destruction of several subway stations in the financial district. Army vehicles and soldiers patrolled Wall Street, which was still covered in soot. Few people were about the first few weeks following the disaster, giving the normally bustling financial district the appearance of a ghost town. My own office building remained without a central electricity supply, but a large back-up generator erected on the sidewalk provided sufficient electricity for a minimal level of lighting and computers and office equipment (but not the building elevator). There was no food to be had, as no deliveries of food had been made to Lower Manhattan during the time that the community was closed by the Mayor’s office. The food supplies that were in grocery stores and restaurants had been discarded due to spoilage; without electricity it had not been possible to refrigerate perishable foods.

And so we began the task of resuming our lives, reconnecting with friends and family throughout the world to let them know we were safe, as telephone service became available, and rebuilding our small businesses. We will never be able to calculate the human cost of the tragedy: the lives lost, the families scarred, the continuing fear and anxiety among those who lived through it and those who saw the disturbing images on television. We can calculate, in a precise way, the financial costs of the catastrophe. This is shown in the table on the following page, which appeared in an article titled “The I.T. Toll” and is reproduced with the consent of the publisher.

An economic impact study\(^1\) conducted by the New York City Partnership estimated that the September 11 terrorist attack would result in $83 billion of damage to New York City’s economy. The study concluded that even after the payment of insurance claims, federal reimbursement for rescue work, clean-up and repair of the transportation infrastructure, as well as the ancillary effects of these damages, New York City’s economy would likely sustain a net economic loss of at least $16 billion. The City’s economic development staff and the State’s Department of Labor have each estimated that Lower Manhattan lost 135,000 jobs in the six months following the terrorist attack.

The economic consequences of this disaster were not confined to New York City. With the temporary closure of airports and restrictions on travel on and following September 11, the travel industry has suffered economic losses. With travel volume down, tourism, throughout the United States and overseas, has declined. There is a “multiplier” effect
### IT Toll

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<tr>
<th>Company</th>
<th>Employees at Ground Zero</th>
<th>IT Assets</th>
<th>Damage/Downtime</th>
<th>Comments</th>
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<td><strong>American Express, a $39 billion financial services firm</strong></td>
<td>3,200 employees on floor 94 in 1 World Trade Center, 27 floors in 3 World Financial Center, and 3 floors in 7 World Trade Center; 11 died.</td>
<td>About 3,200 PCs, e-mail and Web servers, and a server farm for American Express Bank’s transaction systems</td>
<td>$140 million. No loss of customer service or bank transaction processing, thanks to hot backup servers that kept systems running. E-mail service for four New York branches was down for 36 hours. AmEx’s headquarters, though still standing, will not be usable for months. By Oct. 8, displaced staffers were installed in five locations in New Jersey and Connecticut.</td>
<td>Despite American Express’s huge presence at the World Trade Center, its losses were hardly devastating. For that, the company credits its contingency planning. “We may make a few adjustments as a result of this experience,” says spokesperson Tony Mitchell. “But by and large, our plans worked successfully. From a customer standpoint, they worked without a glitch.”</td>
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<td><strong>Aon Corp., a $10 billion risk management and insurance brokerage firm</strong></td>
<td>1,100 employees, on floors 92 and 98-105 in 2 World Trade Center; 176 perished</td>
<td>About 1,100 PCs, 20 servers and communications gear for 14 New York Aon locations.</td>
<td>No data loss due to backup systems, but high-speed Net access for Aon’s 14 local offices was not fully restored until Oct. 19. During the interim, satellite offices manually dialed into headquarters for e-mail and Internet service. CIO June Drewry ruefully admits, “We’re just getting back to normal.”</td>
<td>“We had a disaster recovery plan, but it didn’t account for the possibility that everything would be lost,” says CIO Drewry. “Finding new hardware wasn’t our problem. It was finding space for our displaced employees and getting them connected” to Aon’s network.</td>
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<tr>
<td>Company</td>
<td>Employees/Location</td>
<td>Equipment/Systems</td>
<td>Recovery Costs/Effects</td>
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<td><strong>Dow Jones</strong></td>
<td>800 employees on floors 9-12 and 14-16 in 1 World Financial Center; all survived</td>
<td>About 800 PCs, 50 server clusters for the <em>Wall Street Journal</em> and <em>Baron's</em> desktop publishing systems, Dow Jones news wire feeds, and the company's entire e-mail system.</td>
<td>More than $2 million to replace IT hardware and office equipment. No data or service loss. A hot backup in its New Jersey data center kept its websites, news wire services, and e-mail running uninterrupted. By late September all employees had relocated to Dow Jones's New Jersey campus and other Manhattan offices. Dow Jones prides itself on running one of the best data protection setups in the business. Backup systems are online 24/7, and every data center has its own power generator. “We have spent tens of millions of dollars to maintain a high level of redundancy,” says CTO William Godfrey. “It’s ingrained in our culture.”</td>
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<td><strong>May Davis Group</strong></td>
<td>13 employees, on floor 87 in 1 World Trade Center; 1 perished</td>
<td>13 PCs, databases, and Web and e-mail servers</td>
<td>About $100,000 in destroyed equipment, with at least $1 million in revenue lost to downtime and data loss. Some client records lost. A temporary New York office opened Sept. 17. May Davis had no backup plan in place at the time of the attack.</td>
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| **Morgan Stanley**      | 3,700 employees on 22 floors in 2 World Trade Center and 3 floors in 5 World Trade Center; 6 died | A server farm for Internet trades and the intranet for its brokers nationwide. Also, a network control center that monitored its investor transaction systems. | Estimated at $150 million. No data lost. Hot backup sites in Manhattan and New Jersey kept 90 percent of its systems up and running without interruption; e-mail was restored within 72 hours. The company’s New Jersey location is now its main data center; another site is under construction in San Francisco. When the Gulf War began in 1990, Morgan Stanley revamped its disaster-recovery plan—specifying everything from where employees meet after a crisis to how data are protected. It was also lucky – earlier this year it upgraded a facility in Manhattan with a state-of-the-art backup system, 400 wired workstations, and space for 1,000 employees.
### IT Toll (continued)

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<td>Oppenheimer Funds</td>
<td>598 employees, on 5 floors in 2 World Trade Center; all survived</td>
<td>Computers for stock trading, more than 600 PCs, and servers for an intranet</td>
<td>Computers were backed up nightly in a Denver office, so data losses were minimal. Oppenheimer’s mission-critical trading systems were ready for business within seven hours, operating out of its New Jersey location.</td>
<td>“The ’93 [WTC] bombing was a great lesson in the wisdom of having a contingency plan,” says spokesperson Greg Stitt. After that attack, Oppenheimer wired a 1,500-square-foot-space in New Jersey and built a backup trading floor.</td>
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as those who directly sustained economic losses cut back on their spending, which in turn, has economic consequences for suppliers who, in turn, cut back on their spending, and so on.

The “ITT Toll” table is a particularly helpful synopsis of one category of losses suffered by six tenants of the World Trade Center and the adjacent World Financial Center. There are four conclusions that one can draw from this table that are of particular interest:

1. The toll is substantial, and yet includes only one component of economic losses: those pertaining to information technology. Morgan Stanley, for example, estimates its losses related to information technology at $150 million! Other costs, such as employee absenteeism or lost revenues, are not considered in this presentation. The total losses due to this catastrophe are obviously significantly higher than simply the IT costs.

2. The losses were motivated by a disaster on a scope and scale that vastly exceeded the worst-case scenarios envisioned by those executives responsible for risk management. The chief information officer of AON Corporation notes, for example, that the company’s disaster recovery plan did not “account for the possibility that everything would be lost.” (For the record, in developing a contingency plan for Childs Capital, the worst-case scenarios we had contemplated included lack of access to our office building for some time due to fires in the nearby subway station—nothing on the order of magnitude of the events of September 11.) Yet, those companies may have been better prepared than many other businesses throughout the country, as the 1993 bombing of the World Trade Center alerted them to the necessity of contingency planning.

3. Five of the six companies profiled in this table are large, well-capitalized corporations with significant resources. In certain industries, large companies are required to have contingency and disaster recovery plans in place and to make them available to their regulators. The contingency and disaster recovery plans of mutual fund companies, for example, are currently among the top priorities for the Securities and Exchange Commission. Few small businesses would likely have the capital and human resources to “maintain a high level of redundancy,” as was done by the Dow Jones organization.2
One of the companies profiled, MayDavis Group, is a smaller, privately held financial services firm that had no backup plan in place at the time of the attack. The losses sustained by that firm are almost certainly more painful than a comparable loss sustained by a larger, wealthier corporation.

In discussing the business consequences of the events of September 11, *The Economist* reported:

For the next few years, many companies will seek security and certainty. Some lessons learnt in anticipation of the millennium-bug disaster that did not happen will be revived. Critical computer systems will be triplicated, not just duplicated, and kept physically separate: the Bank of New York had two clearing systems, with different telephone and power supplies, but both were in Lower Manhattan and were disabled after the attacks. Companies will want to know where their staff are, and will think twice about allowing all their top teams to work in the same office building. Outsourcing contracts will be rewritten, to clarify provisions on disaster recovery. Supply chains will be redesigned, to make them less vulnerable to disruption. Security checks will be increased. Many of these changes will build in redundancy. They will therefore add costs and reduce efficiencies at a time when companies can ill afford either. But the bigger issue for most firms is how best to manage through hard times.

As large corporations shudder at the costs that will likely be incurred to build in additional layers of redundancy to their operational capacities, imagine the response of small businesses. Our research has shown that most small businesses in Lower Manhattan did not have contingency and backup plans in place prior to September 11, 2001. Many of them were underinsured. The consequences to small business of the September 11 attacks are staggering: according to J.P. Morgan Chase Manhattan Bank, before the attacks there were nearly 7,800 businesses with annual revenues of less than $10 million (the Bank’s definition of small business) at Ground Zero and about 34,800 small businesses in Lower Manhattan. This affects all of us: according to the Small Business Administration, small businesses collectively employ more workers than all of...
the companies in the Fortune 500. We all have a stake in the health and vitality of the small business sector.

Few small business owners have the financial resources to access the expertise that we have to offer, which is why we propose to make it available through this book. We read daily in the press the heart-breaking stories of owners of small businesses in Lower Manhattan who had inadequate insurance and inappropriate technology support. We hear tragic stories from the vendors, suppliers, friends, and neighbors with whom we conduct business. The livelihoods of those small business owners and their employees are at risk. Their dreams are in jeopardy. According to data gathered by the American Red Cross, as many as 40% of small businesses do not reopen for business after they are affected by a major natural disaster such as an earthquake or flood. The Red Cross believes that this percentage would be significantly lower if small businesses were to make minimal investments in disaster preparation.

Regrettably, we cannot prevent disasters from occurring, but we can equip small business owners with the knowledge they will need to mitigate their risks and to recover quickly when disaster does strike. That is the goal of this book. As small business owners, our resources are limited and we must work our assets smarter, not harder, than the assets of larger companies. We must spend our insurance premium dollars wisely; we must make cost-effective decisions on establishing backup information technology support. We will give you the tools to do that, to put in place an appropriate contingency and disaster recovery plan.

Before we continue, we must be clear about what we mean by disaster. We define a disaster as an event that disrupts business operations at a given site and results in a temporary or permanent dislocation of the business. A factory fire is, by our definition, a disaster. A product liability crisis, by the same definition, is not. Consider the experience of tampering with the Tylenol® product manufactured by Johnson & Johnson. We consider that to be a business crisis, one that requires a business to manage communications with its stakeholders and possibly make changes to its manufacturing (or in this case, packaging) processes. The Tylenol® crisis, while undoubtedly painful for the company, did not disrupt business operations or cause the employees to lose access to Johnson & Johnson facilities. Work at Johnson & Johnson could continue on-site, even as the executives of the company were working to communicate with their customers, the investment community, the distributors of their
product, and other stakeholders. We cannot advise you on situations such as the Tylenol® crisis; we are not experts in corporate communications. As such, crisis management is beyond the scope of this book and we would refer you to other sources.5

Few small business owners have the reach to find themselves in a crisis comparable with that experienced by Johnson & Johnson. However, many of us will, unfortunately, experience natural disasters such as fires and floods and disruptions in power supply during the course of building our small businesses. The consequences of such disasters can be mitigated by carefully crafting an insurance program and ensuring adequate information technology capacity. Many of the techniques and suggestions we make in this book are applicable to the nonprofit sector as well. We were surprised to learn that up to 20% of workers in New York City are employed by nonprofit organizations that were affected by the terrorist attacks. We hope this book will be helpful to nonprofit organizations that, like small businesses, pursue their missions with limited resources.

Of course, each small business (or not-for-profit organization) faces unique circumstances and constraints and we cannot reasonably anticipate the needs of each and every single reader. We advise you to consult experts, such as commercial insurance brokers, where appropriate, and expect that the information we impart in this book will enable you to be a more knowledgeable consumer of such services and to use such services in a cost-effective manner.

We hope that your small business never experiences a disaster and we hope that the world never again experiences events such as the ones we experienced on September 11, 2001. Unfortunately, we cannot prevent such tragedies from occurring. We hope, however, that we can assist you in preparing your small business for disasters that will, unfortunately, occur from time to time. We also believe that you will find that contingency and disaster recovery planning improves the efficiencies of your business processes and, therefore, that the planning process we recommend will immediately benefit your business—irrespective of whether your business ever experiences a disaster.

NOTES

2. For a detailed treatment of the increased costs imposed on businesses
by the terrorist attacks, we recommend you read an article that appeared in the February 18, 2002, issue of *Fortune*, entitled “The Friction Economy: American Business Just Got the Bill for the Terrorist Attacks—$151 billion a year” by Anna Bernasek.

3. For a moving and detailed account of the recovery process of the May Davis Group, please read “Thirty Days of Grace” in the December 2001 issue of *Worth* magazine. This article should be required reading for every small business owner and employee.


5. During the course of my business career, I (Donna) participated in excellent crisis management programs offered by the Corporate Response Group in Washington, DC, which I highly recommend.
Contingency Planning and Disaster Recovery
Starting a Small Business. This Guide Your Two Primary Resources. 1. Make Sure Running a Small Business is Right for You. 6. Further resources can also be located through the Small Business Section tab of the website for the Province of B.C. located at: www.gov.bc.ca/smallbusiness. Many helpful resources appear throughout this guide. The two that provide essential services and information for B.C. entrepreneurs are Small Business BC and the OneStop Business Registry.