Summit on Resilience

Securing our future through public-private partnerships

March 2013
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Pace University
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Message from the President

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On January 11, 2012, Pace University brought together more than 250 leaders in business, government, and academia for “The Summit on Resilience: Securing our Future through Public-Private Partnerships” in New York City. A galvanizing occasion, the Summit on Resilience harnessed Pace’s capabilities as a university devoted to theory and action with the goal of identifying major roadblocks to resilience and helping to foster ideas for effective strategies and solutions. As a major cultural institution in Lower Manhattan, Pace was proud to convene this gathering, which included several critical actors in New York City’s public and private sectors as well as a wide range of first responders whose bravery and dedication inspires our deep gratitude. Together, we explored opportunities for bolstering partnerships during times of disaster and upheaval.

I am delighted to share with you the enclosed booklet, which represents a major step forward in the University’s ongoing pledge to elevate this timely dialogue to a national level. From management to law to nursing and more, six Pace professors offer their perspectives on resilience and public-private partnerships, highlighting the need for a truly interdisciplinary approach to addressing this complex challenge. The booklet also contains thought-provoking remarks from the Summit’s special guest speakers, including the Honorable Thomas Ridge, the first Secretary of the U.S. Department of Homeland Security; Margareta Wahlstrom, Special Representative for Disaster Risk Reduction at the United Nations; and Andrew Revkin, the Senior Fellow for Environmental Understanding at Pace’s Academy for Applied Environmental Studies and author of the Dot Earth blog for The New York Times.

On behalf of Pace University, I thank you for your interest in this important subject and I look forward to seeing you at the “Summit on Resilience II: Lessons from Superstorm Sandy,” on September 24, 2013.

Sincerely yours,

Stephen J. Friedman
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**Introduction**

**Summit on Resilience: Securing Our Future Through Public-Private Partnerships**

In May 2010, the White House released the National Security Strategy. One key component of it reads:

*Improve Resilience Through Increased Public-Private Partnerships: When incidents occur, we must show resilience by maintaining critical operations and functions, returning to our normal life, and learning from disasters so that their lessons can be translated into pragmatic changes when necessary. The private sector, which owns and operates most of the nation’s critical infrastructure, plays a vital role in preparing for and recovering from disasters. We must, therefore, strengthen public-private partnerships by developing incentives for government and the private sector to design structures and systems that can withstand disruptions and mitigate associated consequences, ensure redundant systems where necessary to maintain the ability to operate, decentralize critical operations to reduce our vulnerability to single points of disruption, develop and test continuity plans to ensure the ability to restore critical capabilities, and invest in improvements and maintenance of existing infrastructure.* (Page 19, National Security Strategy, May 2010)

This simple paragraph has been an integral part of multiple discussions on how best to secure the country since September 11, 2001. And yet, most do not grasp its potential reality. One possible explanation is that little is known about the definition of resilience, and the capacity and capability of both the public and private sector to build partnerships. One plausible explanation is that the public sector tends to be quite wary of the private sector, and the same can be said regarding the private sector’s attitude toward the public sector. There is a conflict of cultures.

To illustrate the complexities of the discussion around the topic of resilience, the strategy notes that, “When incidents occur, we must show resilience by maintaining critical operations and functions, returning to our normal life, and learning from disasters so that their lessons can be translated into pragmatic changes when necessary.” If this component of the strategy is to be successful, there is a series of questions that has been around for a number of years and yet, no clear answers have been offered. Such questions include:

**When and why do the public and private sectors need to be in partnership?**

One way to approach this question is to look at a specific context for potential partnership. Neither sector gives sustained attention to catastrophe or to its co-dependency in case of catastrophe or near catastrophe (e.g., Three Mile Island, Deepwater Horizon, the 1965 Northeast Blackout). Instead, in the face of catastrophe, there is often a tendency toward mutual finger-pointing. Considering these and other examples, what can we learn about the key tensions separating the sectors and the core needs binding the sectors? How can effective proactive collaboration be crafted to prevent and mitigate crises?
**If and when there needs to be a partnership, who has to be involved and how?**

This is not the first effort to engage public-private partnerships in homeland security. Many prior efforts have had ambitious beginnings and faded away. A recurring problem has been finding who should be at the table to sustain strategic engagement. Who is the public sector's “functional equivalent” of a major corporation's CEO? On issues of fundamental strategy how do we match the right private and public leaders? Authority, responsibility, continuity, and competence are distributed differently in the two sectors. How do we help each sector effectively map its strategic communications and decision-making to its most appropriate peers?

**If and when there needs to be a partnership, how—practically and operationally—do we partner?**

The public sector is divided by federal, state, and local jurisdictions and a huge host of agencies. The private sector is divided by competitive relationships, product lines, markets, technology, financial size, and much more. Both the “public sector” and the “private sector” are largely abstractions and almost illusions. The meaningful reality is much more fine-grained. How does each side recognize and adapt to the diverse reality across each sector, as well as between the two sectors?

Public-private relationships (PPR) have potential value when:

1. A specific risk, opportunity, or interest is identified;
2. These risks, opportunities, or interests overlap in the public and private domains; and
3. There is a mutual benefit, or a complementary value, or a conflict of values to be resolved through shared engagement.

Even when these preconditions exist, effective PPRs are impeded when the public sector is less focused on collaboration than on compliance.

Effective PPRs are more likely when a consciously cultivated network of persistent relationships can be directed at specific tasks (in contrast to an organizational structure being directed at a range of issues).

The public and private sectors are in a relationship. This relationship is atypically a partnership. But recognizing, valuing, and nurturing real relationships that exist will often enhance the opportunity for effective partnership when the atypical need for partnership arises.

Relationships of any kind usually depend upon and benefit from identification of specific concerns that are shared. Being serious about what is shared—and tensions over what is shared—is a precondition to a healthy and meaningful relationship. Friction is to be expected. Finding effective ways to channel the energy emerging from the friction is helpful.

Relationships do not flourish when either party is focused on control. Public sector behavior is too often oriented to command-and-control rather than focused on creativity and collaboration. This results in the private sector assuming a defensive stance to exclude the public sector.

While public-private relationships can and should be long-lasting, public-private partnerships will usually be most successful when focused on specific, ad-hoc objectives. Historically, there have been too many advisory council meetings and reports and too few task force decisions and outcomes.
This confusion, overlapping of agendas, and multiple perspectives are best dealt with an academic exchange of ideas. Pace University, recognizing this opportunity and its strategic location—mere blocks from the former World Trade Center—seized the opportunity to focus the discussions and seek to potentially develop the framework on how to achieve resilience through public partnerships.

To provide this educational forum to begin to address some of these broad issues, Pace University hosted the first in a series of Summits on Resilience. The initial goals of the Summit on January 11, 2012, were:

- To gain a better perspective on specific obstacles to more effective P-P partnerships within the spheres of influence represented by selected panelists from both the public and private sectors.
- To identify potential solutions to identified obstacles to effective P-P partnerships.
- To identify a variety of best practices in use today to address specifically identified challenges that typically accompany any crisis.

What follows is a summary of the Summit on Resilience. It includes welcoming remarks and an insightful perspective by the President of Pace University, Stephen Friedman, who brings to the discussion public and private experiences. His perspective focuses on the reality that once law enforcement and humanitarian rescue efforts are finished, no sector is responsible for assisting and assuring that rebuilding occurs.

His comments are followed by Margareta Wahlström, Special Representative of the Secretary-General for Disaster Risk Reduction at the United Nations. Her comments focus on the need for public-private partnerships to address risk reduction and disaster recovery.

To elaborate the realities of developing public-private partnerships, two panels of experts from both perspectives offered varying insights. One of the major outcomes of the conference was the development of six different papers on resilience and public-private partnerships. These papers represent the six schools within Pace University—Dyson College of Arts and Sciences, Lubin School of Business, School of Law, College of Health Professions, the Seidenberg School of Computer Science and Information Systems, and the School of Education. The genesis of the idea to elicit these perspectives was Nira Herrmann, the Dean of the Dyson College, who recognized that achieving resilience through public-private partnerships requires a truly in-depth understanding of the need for an interdisciplinary nature on how to begin to address this complex problem.

Joseph F. Ryan, PhD
Chair and Professor Pace University
Dyson College of Arts and Science
Department of Criminal Justice and Security
Summit on Resilience

President Stephen J. Friedman: Introductory Remarks

Good morning and welcome to what I expect will be the first in a series of important discussions on resilience and rebuilding after natural or terrorist disasters.

This conference grew out of a series of conversations between Dr. Joseph Ryan, the Chair of Pace’s Criminal Justice and Security Program and the head of our graduate program in Homeland Security, and some of his friends and colleagues at the Naval Postgraduate School’s Center for Homeland Defense and Security in Monterey California. The Naval Post Graduate School is a co-sponsor of this conference and we are very grateful for their important contributions and support.

We are also grateful to The Boeing Company and to Target for their financial support of this conference.

We are particularly proud to have two distinguished speakers. Margareta Wahlström, Special Representative of the Secretary-General of the United Nations for Disaster Risk Reduction, will open the conference with a discussion of these issues on a global scale—for make no mistake, these are truly global issues. Governor Tom Ridge, the First Secretary of Homeland Security, will provide the keynote address just before lunch.

The premise of the conference is simple. After 9/11, America put tremendous resources into intelligence and detection to prevent a recurrence of a major terrorist event. New York City alone is said to have an anti-terrorism force, including intelligence offices abroad in many countries that includes 10,000 men and women. First responders have been given special training. The humanitarian agencies, both governmental agencies at all levels and NGOs, have vastly increased their experience, knowledge base, and readiness.

In the private sector, individual companies have made major investments in building resilience and redundancy into their infrastructures so that they have the necessary basis for business continuity. These efforts have been largely successful and, since 9/11, the nation has suffered from natural and man-made events rather than terrorism.

So what’s left to talk about? We are dealing, more or less effectively, with the first two stages of the response when disaster strikes: first, law enforcement and emergency response, and second, the implementation of prompt humanitarian measures.

But what happens after those initial responses? If I may be permitted a little hyperbole, the third stage—rebuilding—appears to be a black hole. And the larger the size of the rebuilding challenge, the blacker the hole.

This is a stage in which the resources, the know-how, and the primary responsibility are concentrated in the private sector. In the face of a major disaster, however, the public will continue to look to government for planning, leadership, and the investment of critical funds when the market is unwilling to assume unknown risks at an acceptable price. The worldwide record in dealing with these stage-three challenges is not a good one. Exhibit A is the amount of time and the level of disorganization that has attended the rebuilding of the World Trade Center Site, just a few blocks from here. Exhibit B, on a larger scale, is our chaotic experience in the rebuilding of New Orleans. Exhibits C and D, though falling in the emergency response rather than rebuilding stages, were the
incredible lack of effective cooperation between governmental agencies (which had the authority to act) and business actors (which had the resources and know-how) in the Deepwater Horizon blowout in 2010 and the Fukushima Daiichi reactor disaster after the earthquake in Japan this past year.

When Dr. Ryan mentioned the premise of the proposed conference to me, I was fascinated by the number of questions that I, and I think of myself as a reasonably well-informed layman, could not answer—and which he suggested the experts could not answer either.

It is perfectly clear that what is required to rebuild after a major disaster is a real partnership between the public and private sectors—a partnership in which the relative roles of each are clearly spelled out in advance:

- Who is thinking about the allocation of responsibility among different levels of government and between government and business? Note that when we talk of rebuilding we have moved beyond law enforcement and humanitarian activities. Which are the government agencies responsible for coordinating rebuilding? Do any exist?
- Do we leave the challenge of design and coordination to local zoning and planning boards? At what point does rebuilding a city become a statewide or a federal responsibility?
- Is there any existing infrastructure around which public-private partnerships can be built in real time when the need arises? Is anyone even thinking about what they would look like? Let me give you two obvious examples.
- How do we streamline insurance recoveries to make funds available for prompt rebuilding? Or are we condemned to repeat the World Trade Center experience and leave the resolution of what are clearly public issues to private litigation? What is the role of the federal government in this process?
- How about financing rebuilding? Even if the banks stand ready to lend for reconstruction, is there a necessary role for the federal or state governments in funding infrastructure? Are governmental guarantees required?
- I haven’t even mentioned the long-term health care effects. There has been increasing attention paid to dealing with the immediate, emergency effects of a World Trade Center disaster or a major natural disaster. I just returned from a trip to Burma, where 140,000 people died as the result of Cyclone Nargis in 2008. Countless others were left homeless and injured. I don’t know whether we are prepared to deal with that kind of emergency, but how about the long-term health care effects of a cyclone, earthquake or major terrorist disaster. Again, who is planning what?

Asking these questions is kind of fun, but the answers can be frightening. It is clear that this conference is not going to answer all these questions today. There is too much work to be done—too much intellectual groundwork to be laid.

My expectation is that the conference will identify the major questions to be explored and that it will lay the groundwork for a series of smaller, industry-based discussions among critical public and private sector actors that will do two things: first, identify the important questions that have to be answered and lay out a method of developing options for answering those questions, and second, outline a structure for operational public-private partnerships to function in each major sector of the economy in the event of a natural or terrorist disaster.
The Honorable Tom Ridge

Introduction of the Honorable Tom Ridge, by President of Pace University, Stephen J. Friedman

Governor Tom Ridge apparently thought it was too cushy a job to be the governor of a major state. So in 2003, he became the first Secretary of the US Department of Homeland Security and he accepted the challenge of absorbing 180,000 employees from 22 agencies and creating something beautiful. To create an agency that has the multiple challenges of facilitating the flow of people and goods across our borders, creating layered security for air, land, and sea ports, developing a unified national response and recovery plan, protecting critical infrastructure, integrating new technology, and improving—this is the easy part—improving information sharing among law enforcement agencies, both within the United States and internationally. An extraordinary challenge to which, I think, he brought an extraordinary response.

Today he is president and CEO of Ridge Global, a team of international experts that helps businesses and governments address risk management, global security, emergency preparedness and response, strategic growth, infrastructure protection, technology integration, and crisis management. Again, this is an extraordinary challenge for extraordinary times. He is a very special man indeed. Please join me in welcoming Governor Tom Ridge.

Address by Tom Ridge, Former Secretary of Homeland Security, on Resilience Through Public-Private Partnerships

Thank you for your very warm reception.

Let me say at the outset how much I appreciate Pace University's invitation. I thought Phil Palin's challenge to the academic community was on target, as well as President Friedman's and others who want to take on this mission of trying to build public and private partnerships. Someone on the panel used the word “bilingual” to discuss this challenge. I agree. I mean they (public and private sector) have slightly different cultures, and sometimes they speak with different languages, so anybody that can build a bridge between the two will make an invaluable contribution.

I have the opportunity to share some thoughts with this audience, but I kind of feel like I'm preaching to the choir.

Let me make some general observations about this very important topic. I want to thank the University for inviting me to do just that. It's a pleasure to join you here today. You know it's the day after the New Hampshire primary.

Since we're here to touch on disaster recovery, it strikes me that presidential primaries are much like a natural disaster or a major storm. They often knock people off their feet, they usher in some hot air, and the next morning they reveal the debris that needs to be cleared so that others might keep on going. Now, in these presidential campaigns, there's often a miracle story of someone originally written off, emerging alive, struggling and vowing to fight on. The media tells us power is down, a pole has been uprooted, and now everyone's blaming the president. Now, you can predict what
will be the big moment during primary season, but hurricane season, not so sure.

Well with Mother Nature we often know that there is going to be a lot of grandstanding and posturing on her part and they'll be no chads left hanging. But frankly, whether it's a hurricane or a biochemical attack, whether we're speaking of a major weather event or the resolve of someone's evil intent, we can generally conclude that the impact will be consequential. And just as important, if not more important to our discussion today, we can almost always conclude that somewhere along the line, there was a disaster that occurred well before the levee ever broke, or the tornado touched down; well before someone wishing us harm ever boarded a plane, configured a bomb, or loaded a weapon.

The tragedy before a tragedy is that it just might—not always—but it just might have been prevented or its consequences mitigated, damage lessened, or lives saved; because somewhere before the point of impact, we were not ready. We missed something in the communication, the collaboration, the coordination; something somewhere went awry. Of course each time that happens, we need to identify what that something was and hopefully correct it. We have to do better.

I am intrigued by the discussion from the second panel, and I think it's really true: The public will forgive accidents but not arrogance, not complacency, not bureaucracy; and certainly, the public will never forgive a lack of preparation. I cannot help but think as I was watching Mayor Bloomberg last year talk about the precautions they were taking in anticipation of the hurricane [Irene]—that it was pretty bold—that there was a lot of leadership there. And then Mother Nature kind of twisted around and took the wrath in another direction. And what was absolutely astonishing afterwards was some of the commentary: “Well, he probably overreacted.” No, his job was to be prepared and he was. I wish the folks who had been involved in the planning, the exercise in New Orleans six or seven months before Katrina, would have applied some of the lessons they learned during the exercise at the time Katrina hit. They were not prepared—what a difference. I just was fascinated by the criticism that came [Mayor Bloomberg's] way.

So I'm very pleased to join you today for the discussion on how we can improve America's state of readiness—specifically by pursuing public-private sector partnerships as aggressively and as resourcefully as we can.

We do know that in America, there is first, in all of us, as individuals, as communities, before we even start rebuilding—there's a resiliency of spirit. If nothing else, what we've learned over the past 10 years is that America is a pretty resilient country. We can take a hit. We saw it after 9/11. We saw it after Katrina. We see it throughout American history, after the Johnstown Flood in Pennsylvania, after the Northridge earthquake, after the BP oil spill. We're pretty resilient. We've got this “can-do” attitude. From community to community, within the much broader community of the United States, we have this desire, this commitment to go on. It is ever-present. It is kind of in our DNA. We have never thrown up our hands and given in, given way, or given up. That's just not what Americans do.

I have held a lot of government jobs in my life, from the time I was a soldier to the time I was a Cabinet Secretary. But I've got to admit, I really enjoyed being Governor. It is a good gig.

I was governor for six years, nine months, and five days, and every day was a good day. In Pennsylvania, there is a strong, and very much admired tradition, and it is the same in other states as well. It's the barn-raising tradition of the Amish. It's reminiscent of farmland communities, not just in Pennsylvania, but in Amish and Mennonite
communities around the country. When a fire strikes or when weather knocks down the barn, neighbors normally come in and try to make it right as soon as possible.

They work from a common plan: they share their tools, they eat and they pray at the same table, and soon the family's back on its feet, and that important piece of infrastructure—family infrastructure, economic infrastructure—is in service again.

When you think about it, the grid itself is operated by a kind of community arrangement. Back in the day, when all electric companies were being set up, mostly to operate street-car lines, neighboring companies learned that they could buy, sell, and share electricity, reroute it as necessary, optimize generation assets, and, of course, cover emergencies by creating joint administrative grids.

Now, we know the whole nation is covered by several huge interstate electrical grids, all serving pretty much the same purposes as they were when they were first built. It’s been alluded to in the discussion and bears repeating: barns and poles and grids are not resilient, but people are. And the same principles of community, common interest, and shared tools, and technology drive all three of these arrangements. And note they are all private.

Now, regulation may be involved—safety, environmental, economic—and that is appropriate, but none of these successful ways to handle an emergency public need were mandated by government or sustained by government grants. But it must be cheered, encouraged, and nurtured by government. And where possible, and FEMA is doing a great job with this, and I'll allude to this later on, facilitated and enhanced by a collaboration with government just as the Commission is doing in New York.

Unfortunately, as many of us in this room know, when emergencies used to strike, the bugle call used to be, “Quick! Fire! Gather your neighbors!” Sometimes, today, it is “Gather the lawyers, gather the members of Congress, and gather the policy police!”

It is in my view, and I think it’s shared by all of you in this room, hopefully, that the surest way we can improve our disaster readiness and keep our citizens safe, our communities resilient, and our economy moving forward, is through the public-private sector partnerships that have been discussed all morning long.

I think we all understood that after 9/11, as a country, not just as a government, disaster preparedness] is a societal challenge and I think that's very appropriate. It's everybody's challenge. After 9/11 we learned we should do things differently. We certainly needed to do things better.

I've always thought while homeland security may have been a federal agency or Cabinet position, it's really a national mission. Everybody's got a role to play, and it is the work of a nation. That work extends from the federal government, reaches well into our communities, public sector, private sector, academic community—and before a disaster even occurs. The very premise of a national mission involves an understanding that everything we do must be a shared effort, must be a shared responsibility.

Now, when we first set up the Department in 2003, it required not only that we look at how agencies worked across the federal government, but also how we could work better with our state and local authorities, the private sector, and the academic community.

We certainly had to redefine the work we did together. However, we had to try to let go of the turf battles. There was a pervasive lack of communication and, as speakers have alluded to earlier, you need that situational awareness. You need to have current and timely information you can act upon. And, as everybody said, you do not want to
be introducing yourself at the time of the disaster or the calamity. You've got to have all of these roles and responsibilities worked out long before a disaster strikes. That's not the time to be exchanging business cards.

I used to tell my friends in the business community that if you look at DHS from a private-sector perspective, you'd see that we began operating with a board of directors of 535 people. My private sector friends used to say that you've got to run government more like a business. And I said, “Call me when your board of directors is 535 people—it's called Congress. And call when you have to turn to that kind of board to get funding in order to secure what you do and hire the people that do it. And by the way, we have three million shareholders—called the American public.”

We had to be operational from day one, from March 1, 2003. We had to keep the country secure and at the same time try to pull together 20-plus agencies and 180,000 people.

That is a real challenge. And as a department, as a country, I think we've made great progress. I think we're far better prepared than we were before 9/11. I think in a decade's time the federal, state, and local private-sector leaders have trained together; they've worked together; they've run the tabletop exercises, major exercises, like Top Off. We've improved preparedness and response capabilities through new technologies. We have instituted our Ready Campaign and the Computer Emergency Readiness Team. We've got the fusion centers and the work continues to today. I believe that, in terms of emergencies, we are far better prepared in terms of training and outreach with one another. And I remember the work we did with the National Response Plan and the National Incident Management System, so that at least there was a model [for our successors to go forward].

There are two things you need to know about the model you build: It gives you a foundation to respond and react, but also you know through that model that you cannot be prepared for everything. What you need to be prepared for is being unprepared. So you need some flexibility within your system but you also need people and leadership who make judgments at a time based on circumstances they come into.

With the National Response Plan—I think they've renamed it after Katrina, but it's basically the same thing—and the National Incident Management System at the state and local levels, we are far better prepared.

I tip my hat to the first responders in this community. One of the things that the public sector has let the private sector down on, and frankly they let all 300 million Americans down on, is not making good on the 9/11 Commission Report to build an interoperable broadband public safety network—one that would enable all of our first responders to perform more effectively in the event of a natural disaster. I think it is, frankly, a conspicuous, outrageous, and major gap in our ability to respond and recover as quickly as possible to an all-hazard event. Frankly, I think it's a failure of Congress to match its own rhetoric. Those late nights, when I cannot get to sleep, I turn on C-SPAN and I listen to what they call special orders—that means you can go down to the floor and just talk. And they talk and they talk and they talk about the fact that we need the public safety network, but we've been talking about it for 10 years. Don't get me started. [Legislation has since passed since these remarks.]

In keeping with our discussion today, a little more than 10 years post-9/11, six years post-Katrina, two years post-Fort Hood, two years post-BP oil spill, I believe we have also yet to fully and aggressively integrate another key component into our national mission to prepare, respond, and recover from a catastrophic event.
For a truly national mission, it must be an integrated one. What I am saying is: partnerships, partnerships, and partnerships—that’s what we need.

We have heard it before, but I’m going to say it again because it bears repeating. The private sector owns 85 percent of the critical infrastructure. Do you know what major entity in this country relies exclusively on the private sector to enable them to do its job? The public sector—sometimes we forget that.

The business community holds a key stake in the production and transferring of goods through our nation’s security routes, our seaports, our borders, our skies overhead. That means the very backbone of the country is exposed to many levels and kinds of disruptions. And frankly, we all depend on the efficient operation of the private sector from when we get up in the morning to when we go to sleep at night.

Many of you remember that right after 9/11, the government reflexed; we closed our borders; they came to a screeching halt. But we realized right away that the supply chain is the lifeblood of our economy, our economic circulatory system.

So what did we do? We started talking to the private sector right away. We got it going again. I remember the president calling me in after two or three weeks after I got to town, got sworn in. We used to meet every morning in the Oval Office and I remember asking him, saying, “You know, we did a good job with security at our borders right after 9/11, but it brought commerce almost to a screeching halt.” It’s a good reminder, ladies and gentlemen, that our security and our prosperity intersect at the borders.

I remember visiting a General Motors assembling plant. They ordered seats from Ontario, which they had to bring across the bridge in Detroit. Well, what happens if the trucks on the bridge are stuck in the Windsor Tunnel because we ramped-up security? Nothing happens in that plant.

So what did we do? We sat down with government and we sat down with the private sector and we said, we will make some adjustments in the number of people we have in the booths and the number of booths that are open. You need to make some adjustments in your delivery schedule and we can work this out. Once we got it back to normal, we actually improved throughout by 50 or 60 percent. Why? Because we had the public sector sit down with the private sector. There was mutual interest to get certain things done, to advance the economy and enhance security.

Another great example: When the government responders stood accused of delays and miscommunication in the aftermath of Katrina and Rita, Wal-Mart, Lowes, Home Depot, Verizon, Target—they tapped into their logistics expertise and within hours began delivering critical supplies and communication to hurricane victims.

And another example. It was difficult for the private sector to assist after US disasters and after the disaster in Haiti. The fact of the matter is we had people that wanted to step up and help, but there is no conduit to do it.

How much more effective could those responses have been if government officials would have been able to use a coordinated and integrated process that tapped into the power of private sector resources. The repercussions add up to far more than a few missed donations. The cost of overlooking the true capability of the private sector is measured in lives. It is measured in billions of dollars. Certainly we cannot prevent another catastrophe, but we can certainly build the public-private sector resiliency needed to bounce back quickly.

Same as in the area of cyber security. There’s a need for public- and private-sector
integration there as well. In order for the government to effectively deal with its digital concerns, we must deal with an infrastructure that is owned primarily by the private sector—most publicly held companies and their shareholders.

There is no reason why, in this day and age, there cannot and should not be the closest possible collaboration with regard to the digital infrastructure of this country. Some have fooled themselves into believing that the cyber cure is for private sector to meet an array of government regulations. The reality is, however, that cyber criminals and nation states innovate and evolve their methods of attack more quickly than our ability to regulate, legislate and mandate. Technology moves a lot faster than Congress.

So I would argue that the way to fight 21st century cyber threats is to rapidly improve public-private partnerships. There is no area, no space that’s more important to this country than in the digital world. And if there’s ever been a place for public-private partnership because it has an impact on disaster relief and disaster recovery, this is it.

In the 21st century interdependent world, now more than ever, public-private sector collaboration is absolutely essential.

In my view, we need to be looking at everything we can to get past the inertia of bureaucracy and turf mindsets and also get past the notion of keeping good people on the outside looking in. The private sector has historically asked, I might add, and at times pleaded, to be included in the discussion—to be seen not simply through the lens of procurement, but through the lens of partnership.

The public sector pushed back because it thinks that the only thing the private sector is doing is advancing its own propriety interests, its own corporate interests. But that’s just the wrong mindset for the political world to have. There is that sense of social responsibility, they do want to help. They must be given the opportunity to do so. We talked about a process of communication and collaborations—they need to be engaged in that process. They should not be ignored.

Doing the right thing for the company, the employees, the community, and the shareholders—that is the motivation that drives the private sector and has led to innovation for both the public and private sectors. So we've got to include them and give them a seat at the table. They need to be invited at all levels of planning.

By the way, you have a great FEMA director, Craig Fugate. I had the privilege of working with him when he was working in Florida as the emergency management director—he’s a terrific, terrific leader. And I was pleased to hear him speak about FEMA's efforts to be even more aggressive and integrate the private sector within its national emergency teams. This is a man who is one of the finest practitioners that I know, and must tell you that he wants the private sector to become more engaged.

Last year, FEMA hosted its first-ever private sector representatives at your national response coordination center. It’s a 90-day rotation. They bring people in from the private sector to let them see how FEMA operates. FEMA understands the public better than most agencies, and that private-sector participation before, during and post disaster is absolutely essential. They have this “whole community” concept at FEMA, and I think that bodes well for our future. And also, they feel very strongly about doing more on the prevention side.

One of the other interesting things that has happened in the post-9/11 world is actually a piece of legislation on the Hill. Chairman Mike Rogers, of the House Intelligence Committee, is pushing for legislation that would accelerate the process to give some people in the private sector clearances so you can get a little bit more information...to help you prepare.
When I was Secretary, I wanted to talk to governors, or police chiefs, or whomever we were hearing things from that may have required them to take action. There is some intelligence from time to time we think is necessary to share. It's not always actionable intelligence, but it would be good for them to know.

Again, New York is so different. Sometimes you tell Ray Kelly what's going on and he could say, “Well I could have told you that a couple days ago.” He has his own pretty good network around here. But the fact of the matter is, being able to share information with the private sector, at some point in time well, we'd need to be able to trust one another. I frankly think we over-compartmentalize and over-categorize some of this information anyhow.

The federal government will never be able to mandate responsibility. It must empower the private sector. People will accept responsibility if they are empowered to do so. I have to be blunt about the consequences of inaction. When businesses help government keep its country/communities moving forward, there is humanitarian and good-neighbor benefit certainly, but it's also central to the private sector's bottom line. And that is okay; they're allowed to be profitable.

One of the challenges I think we have is to make sure that the public sector is ready to do its job and the private sector is ready to do its job. Some companies have embraced that responsibility to build inherent redundancy and resiliency, so not only will it protect their shareholders, but in case they are called upon by their government, they will be able to respond quickly. Not everybody has that mindset. But a catastrophic or even moderate disaster or an attack can wipe out millions or billions of dollars in revenue, and the inability to recover if there's no back up or offsite contingency plans in place is huge.

Verizon, like a lot of companies after 9/11, absorbed not hundreds of millions, but a billion-plus dollars' worth of losses. Its leaders didn't ask the government to compensate or reimburse them, they just absorbed it and moved on. And by and large, that's the mindset of most private sector entities.

And so we need to understand that the kind of collaboration that is absolutely critical to our ability to prepare and prevent, but also to respond and recover, is full partnership with our friends in the private sector.

We all have to manage the risk before it manages us. Candidly, one of the biggest challenges of risk management is simply having the discussion. Nobody likes to suggest that they are vulnerable or open to risk, whether it's the public or the private sector. But we all need to get beyond the “it won't happen here” syndrome.

Some of the dollars you need in order to build a redundancy and resiliency in the system to help the public sector is viewed by some as an expense. But in my view you need to quit looking it as an expense, but as an investment.

I will tell you, ladies and gentleman, at the end of the day, one of the challenges that has been so well articulated by both panels today, is to build on the goodwill of both the public and the private sector, recognizing that the private sector has, by and large, greater infrastructure, greater resiliency, greater capability to assist this country in times of a hazardous event, or any kind of event.

I quite frankly think we have made enormous progress over the past 10 years in this regard. Good hearts, good people, are part of the community. The private sector wants to be involved in the community when it comes to planning because it will certainly be involved in response and recovery if asked. I am quite convinced that in the 21st
century we have no idea whether or not there will be another terrorist strike, but we always operate as if there will be.

We got lucky in New York City; the bomb did not go off. We were lucky over the skies of Detroit. One of the great things over the past 10 years: We have demonstrated our resiliency—that we can respond and we can recover.

But as everybody has discussed and as everybody knows, there are far more hazards—natural events, natural catastrophes, that we do know are going to happen.

I think if we agree that security is a national mission, then we agree that we need both the public and private sectors involved, and conferences like this go a long way in promoting that cause.

People used to ask me in the first one or two months after I was in the White House, and then as Secretary, “How do you sleep at night?” And I said, “Well I don’t sleep very much, but I sleep well.” And they said, “How can that be?”

I would tell them that I had a very unique view on my country from inside the White House and inside Homeland Security. I knew the professionals, the first responders, the professionals in the emergency management community, and the professionals in the public sector. They want to make us safe and more secure. Same for the military and intelligence communities. And I knew the resiliency and the toughness and the willingness in the private sector to cooperate.

So I knew America’s heart. I think I know its soul, and we will be fine. We will be fine. Because at the end of the day, Americans do not live in fear, we live in freedom. We support one another.

This conference goes a long way in advancing both that freedom and that mutual support, and I thank you very much Pace University.

Thank you.
Securing Our Common Future

Strengthening the Resilience of Communities and Nations

The Power of Private and Public Sector Interdependencies

Address by Margareta Wahlström, Special Representative of the UN Secretary-General for Disaster Risk Reduction

Ladies and gentlemen, distinguished guests,

I am honored to have been invited to contribute to this conference and share the United Nations’ perspective on risk, risk management, and risk reduction. More than 40 years of work on hazards, risks, and practical means to reduce the risks of loss of life, as well as social and economic losses due to natural hazards, have created a significant body of knowledge. Today, what challenge are we facing? To turn this knowledge into practical application, to adjust it to emerging issues, and to overcome strongly held perceptions about “the other” and “self.” Your presence here today is a strong message that progress is made. Can we, though, accelerate progress and achieve a significant drop in losses within the coming 10 years?

2011 was a new record year in disaster losses. The reinsurance company Munich Re recorded 380b USD of global economic losses (two-thirds higher than in 2005, the previous record). Two-thirds of the economic losses were caused by the earthquakes in Japan and in New Zealand, while 90 percent of the hazards events were caused by weather. Research published in the UN Global Assessment Report on Disaster Risk Reduction shows that while in the past 30-plus years the world population has increased by 87 percent, during that same period the population growth in flood-prone river delta regions have increased by 114 percent, and by 195 percent in cyclone/hurricane-prone coastal regions. The message is clear: We are putting our economic, social, cultural, and business assets in the most high-risk areas because that is where wealth and our future are generated. Cities, rapidly growing urban areas, are producing most of the world’s economic output. However, cities are also highly vulnerable and exposed to risks from natural, and technological hazards. Economic losses from disasters are growing fast, faster than the GDP growth in most countries, including the richest countries. Perhaps I should say especially in the richest countries, as they have most of the insured value. Risk is increasing fastest in middle-income countries, due to the imbalance between growth in assets and regulatory frameworks and institutional capacity.

Progress has been made in many countries to improve preparedness and relief in acute disaster situations. In fact, in one region, East Asia, the losses of lives have been reduced very significantly thanks to early warning systems, evacuations, awareness, and education of the public. Where we are still losing ground is on economic and physical losses, political loss, and the medium and long-term social losses from disasters and disruptive events.

The efforts to agree on a global climate agreement to reduce the climate warming are not making progress. While the practical impacts are clear, and warming increases, action is being postponed. This will continue to aggravate weather conditions and perpetuate
the unfolding and all too familiar narrative of disasters, human loss, infrastructure destruction, and escalating economic loss. Human beings’ risk-perception is guided by many factors that we cannot control or influence without understanding them better. But we can fully understand the trends of destructive events and how these impact the welfare of communities, individuals and countries.

One of the paradigm shifts in how disasters are perceived and acted on was the Indian Ocean Tsunami in 2005. It became everyone’s concern, no matter how far away you were.

In 2005, just after the Indian Ocean Tsunami, the Hyogo Framework for Action 2005-2015 (HFA) was agreed upon and then endorsed by the UN General Assembly. This framework guides action for building and strengthening the resilience of nations and communities. A fundamental of this framework is that it requires all parts of society to work together to achieve a more resilient community and nation. Let's take, for example, the issue of the economic losses and consider the answer to the question “Who pays?” I have quoted above the recorded losses for 2011. These are enormous, but certainly not the full picture. In wealthy nations, there is normally a high insurance coverage. Nevertheless, governments absorb most of the relief, recovery, and rebuilding costs. What the full losses are to individuals over time is poorly known—and so is what the losses to business are. We must start counting!

The Hyogo Framework offers a series of practical “things to do” that have been proven to reduce risk and impact. The voluntary cooperation in wide and diverse networks that the HFA has generated has lead to good progress. In early 2011, an HFA Mid-Term Review was done to hear from the “users” their views on progress made, challenges, constraints and opportunities. Much positive was said and noted, not least the value of cooperation. However, the two most significant constraints identified were, firstly, the difficulties and obstacles to share and have easy access to information and knowledge, and secondly, the quality and design of institutions, which includes the challenge of coordination within institutions, as well as among institutions. Here comes the question of authority and accountability: Where does the buck stop on risk management, risk reduction, and resilience strengthening? These are strategic issues that require a high level of authority to ensure an “all-of-society” approach and working method. Without a clear institutional framework, it can easily become an increasingly complex matrix of crossing lines, and more time spent than is perceived to be value-added in discussing how, rather than actually doing. Let's also look now at the positive things that are happening. On the average, only 15 percent of wealth in a given country today is public, the rest is private. Without the full engagement of private and business sectors, resilience cannot be achieved. The instruments for engagement have so far been laws, regulations and to some degree corporate social responsibility. The cooperation and joined action are growing but are very visible. A critical thing to achieve is what the title of this conference calls for: securing our future.

Resilience building—in other words, what we have do to protect ourselves from hazards and “disaster proof” our societies—is, at the end of the day, everyone’s business—government, local authorities, the public and private sectors, civil society organizations and citizens.

Perhaps after a disaster the most instrumental partnership in rebuilding with resilience and disaster-risk reduction is the one that brings together the private and public sectors. Different working cultures, methodologies, and objectives have rendered cooperation hard. Yet we have to try harder to make this work, and use the potential at
hand. Considering how last year’s billion dollars of damages impacted the public sector who has no choice but to rebuild the infrastructures and, considering the devastating effects of the loss of roads, buildings, train lines, harbors, airports, and electrical power plants on the private sector, who are the major users of such infrastructures, the public sector should look at the private sector as the most important contributor to make development sustainable, given that it is incontestably the major generator of national revenues, salaries, products, and services. We know that all these are related to the drivers of risks and make the potential loss scenario more likely, particularly in middle-income countries. The opportunity for the public and the private sectors to explicitly develop a common ground for risk and resilience management—of managing the planetary boundaries, our common resource base—is evident.

I have attempted to briefly touch on the prejudices and perceptions surrounding the potential private-public sector partnership so that we can see more clearly and highlight the mutually necessary and beneficial nature of the relationship between the two entities. Private-public partnerships give governments, both national and local, a more sustainable financial base, while helping governments, companies and ordinary citizens to fulfill their moral and business interest, protect employees, consumers, communities, and the environment.

Private-public partnerships reinforce the social bond among community members and reduce real and perceived inequalities among the local government, the business community and the general public. Private-public partnerships facilitate the government’s job by making compliance with regulatory and safety requirements everybody’s concern. The public-private partnership can also bring an oversight capability to prevent corruption, a major risk to trigger disasters.

Private-public partnerships enhance both the government’s and companies’ ability to recover from financial losses, loss of market share, damage to infrastructure, equipment, products or business interruption, by putting resources and forces together, making preparedness a win-win option. Repetitive loss does not lend itself as a good business example; neither does it contribute to business continuity, enhance corporate images or translate into socio-economic development.

Partnerships work best when based on shared responsibilities and clearly delineated roles and tasks that engage the private sector not merely as a source of funding but as contributing competence, experience, and motivation.

The private sector is also well placed to advocate for resilient thinking because of its direct relationship with customers, suppliers, and everyone in between. A private sector committed to disaster risk reduction can steer public demand towards materials, systems, and technological solutions to build and run resilient communities.

The most dynamic environment for public-private cooperation is most likely at the local government and community level. Local leaders in both private and public sectors have proven the benefits and the value of such cooperation. It yields practical and tangible results in a reasonable time frame.

Local governments are on the frontlines of disasters and no process can be made without them. Civil society organizations are also important partners in the alliance to reduce risk and reinforce resilience.

I believe that public-private partnerships for resilience building should be understood as a learning experience where innovation takes place and provides future guidance. Public-private partnerships are opportunities for innovation, simplification, and action.
Christchurch in New Zealand provides a good example of private-public partnerships following the devastating earthquake that took place last year. Visionary planning has resulted from the central and local governments, the community, and the private sector, coming together to create and maintain confidence, as well as seize opportunities, including collaborative partnerships, for the future of a stronger and more resilient Christchurch. Key to this is timely recovery and good decision-making that endures beyond the recovery. The central and the local governments are working collaboratively with private interests to ensure the recovery is business-friendly.

This approach is very much encouraged by the UNISDR Private Sector Advisory Group, which brings together a wide range of private sector entities into a global partnership for action that encompasses private business, multinational and local trade organizations and government enterprises.

All of these points of resilience building will bring us closer to our shared goal of a safer world for all.

In closing, a primary argument for resilience building and private-sector involvement is aptly illustrated by what happened recently in South East Asia.

Recent floods in Thailand caused Honda to extend production cuts at its Canadian and US assembly plants and Toyota to scrap its financial guidance, scale back output in Japan, and suspend overtime in North America as the Japanese auto industry struggled with the second crippling disaster in 2011.

Intel, the world’s highest-selling chipmaker, cut its guidance for fourth-quarter revenue by about $1 billion, and said that the global PC industry was reducing inventories and purchases. Its shares went down 1.9 percent, suggesting that investors were not happy with the extent of the damage inflicted by months of heavy rain in Thailand.

Reports around the world generally agreed that the Industrial Production Index of Thailand shrank by 34.5 percent.

The fate of Toyota, Honda, and Intel could have happened to any private-sector company conducting business in any area where natural hazards are the norm. We only have to cast our memories back to 2010 when Iceland’s Eyjafjallajökull volcano erupted and caused a massive disruption of business, as airports across Europe had to close due to an ash cloud that drifted towards the continent.

During the first week of 2012, UN Secretary-General, Ban Ki-moon highlighted the prevention of disasters and making the world safer as two of his “five generational priorities” for his second term, which began on 1 January. He said solutions lay with harnessing “the strong power of partnerships” to respond to the planet’s biggest challenges. He underscored that “strengthening the partnerships among governments, business communities, civil organizations, and philanthropists would move the world in the direction.”

Strengthened partnerships among the private and public sectors are powerful opportunities that substantively enhance global efforts to reduce risks, build resilience, and rebuild with resilience as well as safeguard precious economic gains.
Living Resiliently on a Crowding, Turbulent Planet


Human communities will always be in harm’s way even as we improve our technological and societal capacity for withstanding threats—either natural or of our own making. This is partly because history and geography have placed many of our centers of habitation and commerce in zones of implicit hazard. Just two examples are severe and recurring seismic activity in Istanbul and the inevitability of a calamitous storm surge in New York City. The superimposition of allure, utility, and danger led geographer Peirce Lewis to call New Orleans an “impossible but inevitable city.”

The inevitability of calamity also springs from another (and exceedingly uncomfortable) reality: The same technologies and collaborative skills that create civil, sophisticated societies can also be turned against them by those embracing the darker side of human nature. The coordinated and unprecedented tactics of the men who conceived and carried out the momentous and terrible attacks of September 11, 2001, illustrate how preventive strategies only go so far when countering the inventiveness that can accompany evil. Another critical metric amplifying the importance of preparing for inevitable disasters and their aftermath is the trajectory for human development in the next half century—which almost assuredly will add another two billion people to the seven billion alive today. Most of that growth will come in cities, both old and efficient and new-built, sprawling, and chaotic. Accompanying the growth in numbers is the projected construction of more new square footage of buildings in the next few decades than all of the structures erected through all of human history combined. Structures that are built well can be havens; those built poorly can be death traps.

As Pace University President Stephen J. Friedman explained in opening the January Summit on Resilience, cities and nations have demonstrated some success in boosting vigilance, preparedness, and emergency responses, but appear to lag in developing the organizational, financial, and political tools needed for disaster-resistant planning and efficient and smart rebuilding and redevelopment after the worst has happened.

In her plenary talk, Margareta Wahlström, the Special Representative of the United Nations Secretary-General for Disaster Risk Reduction, noted how the damage from the 2011 flooding in Bangkok, which had global economic ramifications by disrupting the flow of vital components for computers (insured losses were $20 billion), was the result of the unplanned and sprawling canal network and footprint of the vast city. “We are building cities that actually generate the disasters that destroy their viability,” she said.

There are ample signs, particularly in Asia’s fast-spreading industrial zones, that the lessons from the Thailand flooding have not been integrated in many other places facing identical, and inevitable, threats. In the discussion at the New York City meeting, which was co-sponsored by the Naval Postgraduate School in Monterey, Calif., a range of panelists from academia, corporations, and agencies recognized that there are no simple templates or protocols for transferring lessons and innovations arising in one country’s, or city’s, disaster zone to others.
But it was clear to many participants that one path to better outcomes lies in building and sustaining forums and networks through which best practices and painful lessons are shared across all sectors of society, and from one society to others.

The logic in pursuing a borderless approach to fostering resilience in the face of inevitable disasters is a matter of both ethics and economics. The disruptions to global supply chains following the Bangkok floods and, of course, Japan’s extraordinary triple shock from a major earthquake, tsunami, and radiation release reveal the interconnectedness that can quickly make a major regional catastrophe into a global event. Within the United States and each of its cities, great and small, there is a similar imperative to plan and invest for the worst, and to reserve yet more attention and investment for increasing the capacity to respond to, and recover from, unforeseeable hazards as well.

One critical pathway for facilitating fruitful exchanges is the explosively expanding global network of computer, telecommunications and social networks. It is not by chance that Margareta Wahlström and the United Nations office of disaster risk reduction maintain energetic presence on Twitter (via @WahlstromM and @unisdr and the “hashtag” #iddr). While some still see Twitter as yet another Web distraction, she and her staff (as with officials at United States agencies dealing with various disaster risks) see it as a vital two-way sensory apparatus for sharing ideas and information before, during, and after an emergency.

Only through sustained engagement, from the scale of face-to-face campus forums to global Internet connectedness, can disaster planners, elected officials, citizens, and companies hope to keep pace with the scope of risks, both to lives and wealth, attending the next phase of humanity’s extraordinary growth spurt.

A core theme at the meeting was that a boosted capacity to withstand and recover from disasters will not come by establishing some set menu of protocols and responsibilities. Ivan Seidenberg, who as chairman of the board of Verizon Communications Inc., deals continually with managing resilient responses to emergencies, went so far as to challenge, playfully, Albert Einstein’s menu for saving the world. While Einstein said that if given an hour, he would spend 59 minutes defining the problem and the final minute designing a solution, Seidenberg noted that in a fast-changing world, the rules and stakes—the very nature of the question—are in constant flux. That kind of situation requires a commitment to constant reevaluation, to learning and adjusting, to knowing resilience building is not accomplished from the top down, and is not a task, but a trait.

Former Governor Tom Ridge, in his keynote talk, echoed this line of thinking. In a single line, he distilled the importance of creating a national culture attuned to the importance of resilience, from family homes to college campuses to corporate boardrooms and beyond. “Homeland security isn’t an agency,” he said. “It’s a national mission.”
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Security for Whom? Putting a Human Face on Resilience

Critical Response Paper Following the Pace University 2012 “Summit on Resilience: Securing Our Future through Public-Private Partnerships”

Matthew Bolton
Department of Political Science, Dyson College of Arts and Sciences, Pace University, New York, NY

a. Whose Body Is Secured?

The human body occupied an ambiguous role in the discourse of the speakers at the January 2012 Pace University “Summit on Resilience: Securing Our Future through Public-Private Partnerships,” a conference on security, emergency management, and post-disaster recovery. Keynote speaker and former US Homeland Security Secretary Tom Ridge seemed particularly fond of anthropomorphic and bodily metaphors. We must manage the threat of “Mother Nature,” he said. America is a nation where “we’ve never thrown up our hands” or given up in the face of adversity. He spoke of the “backbone of the nation,” of supply chains being “lifeblood.” He suggested that the answer to disaster management coordination problems was “partnership, partnership, partnership” and wanted the public sector to “sit down with the private sector.” Regarding the concept of a common emergency communications channel he said he “just want[ed] the bloody system” to get up and running. However, when asked about the expansion of the Department of Homeland Security, Ridge said the government needed “no more people, more technology.” Despite his language being rich with human metaphors, he deployed these mostly in description of nonhuman or abstract nouns—nature, the nation, supply chains, the private sector, a communications channel. But ultimately, for Ridge, building institutions of security and resilience is not a job for “more people” but rather, of nonhuman systems. His technophilia lies within a long tradition within the American security establishment that places its faith in security through technology—a disembodied or “unmanned” security.

There has been a growing recognition in the social sciences in the last 30 years that observation and analysis of human society can never stand outside of human experience. The scholar is socially located in a network of identities: place, culture, politics, class, social status, gender, sexual orientation, race, and ethnicity. All of these factors impact how we perceive our Self and Others we research. Social science is never disembodied, no matter how much it may try to mask this fact. Research is gathered, thought about, discussed, written, and taught by human bodies in relationship with other human bodies and the environment in which they are physically located. Similarly, security and risk management involves delegating to one group of human bodies the task of administering the safety of other human bodies, privileging some over others. Therefore, when asked to attend the Summit on Resilience and write this critical response, I decided to approach it from some
basic political science questions: Who does this conference represent? Whose interests and values are privileged? Who is silenced? Whose bodies are present? Whose bodies are missing from the room? I treated the conference chamber as an ethnographic field—a site where certain discourses, politics and practices of “security,” “resilience,” and “partnership” were socially constructed and enacted. My role in this project, as I perceived it, would be to observe, trace and describe the implicit politics of the room. The word “Summit” implies a meeting of leaders, representatives for particular constituencies or groups. But looking around the room on January 11, it was clear that some constituencies were represented more than others. Indeed, those sectors of society most affected by the humanitarian impact of disasters and conflict were largely absent. The conference program listed 17 men, five women; 18 people were white, three were persons of color; all appeared able-bodied. As I waited for the opening plenary to begin, I started counting the people in my section of the auditorium: 38 were men, mostly white; there were 13 women. Eight of the 22 listed speakers were from the corporate sector, five were employed in public sector emergency management and policing. All but one of the speakers was American. Despite speaking about the very human topic of “resilience,” none of the speakers were psychologists, counselors, social workers, teachers, union leaders, anthropologists, or community organizers. Despite religious leaders being an important source of solace in times of crisis, there were no rabbis, priests, or imams. It would be hard to argue that this demographic profile had no impact on the conversation in the room. I heard little mention of the gendered impact of emergencies. Disasters outside of the United States were barely mentioned. As the speakers talked of “partnerships for resilience” I had to ask: Who is being partnered? Who is left out of the partnership? When we spoke of “Securing Our Future,” who is included in the “Our”? Who is excluded from this “Future”? In the following I will argue that the Summit on Resilience was essentially a summit between two different, though complementary, discourses: Corporate Security and Homeland Security. These discourses diverge—one secures bodies (literal and corporate) with access to market power; the other secures a nostalgic notion of territorial sovereignty. The constant talk of “partnership” and “unity of effort” functioned to build linkages and harmonies between the tensions and contradictions implicit in bringing these two discourses together. Ultimately Corporate and Homeland Security were able to “sit down” together at this summit because they actually shared many key assumptions: a view of the world rooted in privileging certain populations, technophilia/technocracy and the securitization (even militarization) of the boundary between the Self and the “threatening Other.” Tom Ridge, as head of Homeland Security and current CEO of Ridge Global, demonstrates the way these two discourses can be embodied in one human being. However, these two discourses are not the only way to think and speak about security, disaster response, risk management, and resilience. I will outline an important alternative conception—Human Security—of responding to insecurity, risk, and disaster. In considering the importance of embodiment and positionality it would be amiss for me not to state up front my own social location and interests. I did my PhD under one of the primary advocates for Human Security and my analysis below is rooted in the discipline of political science, particularly its “constructivist” school. In thinking about security, I draw on reflections based in qualitative fieldwork conducted in the humanitarian and disarmament sectors of Iraq, Afghanistan, Bosnia, Sudan, Kenya, Uganda, Haiti, and New York City. My understandings of the world are both informed and limited by my education in the US and Britain as well as my upbringing as a middle-class, white, Protestant, able-bodied, heterosexual male.
b. Corporate Security

Many scholars have observed a trend toward the privatization or corporatization of security functions once associated with the public sector. Indeed, the notion of “Private-Public Partnerships” has been described as a bland euphemism for the privatization and contracting out of government services. Private operators are now deeply involved in managing prisons, protecting VIPs, providing perimeter security for bases and gated communities, policing malls, even engaging military operations and intelligence gathering. This has been combined with a general trend toward the corporatization of risk management, with a growth of private pensions, the insurance industry, and the specialized emergency medical services for the wealthy. This is fundamentally reorganizing the politics of public services, space, policing, and emergency management to privilege those who command the resources to pay for them. Security becomes not a right, claimed by the political citizen, but rather a commodity paid for by a consumer. It was impossible to miss the corporate presence at the Summit on Resilience. The logos of Boeing and Target were displayed prominently on the cover of the program and we were informed that our sumptuous networking lunch was courtesy of our corporate sponsors. At my dining table were several security managers of major multinational corporations. Standing in line to register for the conference and pick up my name badge, the man in front of me was wearing a T-shirt sporting the logo of Blackwater, the controversial private military company now rebranded as Xe. One of the keynote speakers informed us that the skills for reconstruction were “all in the private sector.” A representative of Target claimed that the retail chain was a “vital part of the nation’s infrastructure.” The first session after the opening plenary was a “Private Sector Panel,” featuring executives from Verizon, Rudin Management, and Atlantic Health System, who all displayed supreme confidence in the private sector’s capability to respond to disasters quickly and efficiently. Almost every panel and speaker at the conference spoke about “public-private partnerships” as an unqualified good, an important element of the “unity of effort” supposedly required from all sectors of society in “Securing Our Future.” But the efficacy of the increasing involvement of the private sector in security provision was largely left unquestioned.

The selection of panelists, their remarks, and the questions of participants also constructed the “private sector” in very specific ways, focusing overwhelmingly on large corporations. Nonprofits, community organizations, and unions were barely mentioned. When speaking of the post-9/11 “economic recovery” of Lower Manhattan, the focus was largely on the telecommunications, retail, and financial services, rather than on small businesses, despite the preponderance of street vendors, restaurants, dry cleaners, artists, musicians, hairdressers, cafes, hawkers, performers, and even “panhandlers” who make up so much of downtown’s economic life. “Security” and “Resilience” in this setting meant protecting the flow of finance, goods, and services controlled by major corporations, not the lives and livelihoods of ordinary people.

Indeed, a growing social science literature is demonstrating that privatized and corporatized approaches to security can exacerbate social inequality, giving the rich greater protection than the poor. Moreover, absent effective regulation, security companies sometimes avoid accountability for human rights abuses, contract violations, and poor labor practices. Media reports indicate some private security guards use their privileged access and arms to run extortion rackets or conduct “inside robberies” on their clients. While governmental security forces are at least theoretically accountable to their citizens and international law, the regulation and control of private security forces is much less well defined. In short, while the word “corporate” implies
the presence of a human body—a corpus—the corporatization of security privileges human bodies with access to wealth and resources over those who do not. As the protagonist says in the opening lines of *Little Bee*, this year’s freshman common reading at Pace University, “Most days I wish I was a British pound coin instead of an African girl... A pound is free to travel to safety... A girl like me gets stopped at immigration...”

d. Homeland Security

In his opening remarks, the chair of the public sector panel—consisting of federal, state, and local police and emergency management agency representatives—introduced the speakers with a chuckle as the “Masters of Disaster.” The international relations scholar Cynthia Enloe has observed that traditional notions of national security rely on and presuppose a set of gender relations—a masculine protector supported by a female “helpmate.” It is perhaps not a coincidence that the Latin for “homeland” is patria—land of our fathers. Mary Louise Pratt, an NYU scholar of imperial literature, observes that European writers faced with the conflict between their own colonizing culture and that of the colonized, sought “to resolve political uncertainties in the sphere of family and reproduction.” The potential explosive encounter with the Other was resolved through repetition of the trope of a nostalgic, romantic, patriarchal, and heterosexual vision of the “Home.” Susan Faludi has commented on the revitalization of this “Guardian Myth” in the United States in the aftermath of 9/11. This discourse constructs America as a “homeland” (rather than as a haven for multiple diasporas), a safe family space that must be protected by a militarized hyper-masculine guardian from the threats from a dangerous “Outside.” But as the work of many feminist scholars and activists has demonstrated, the home and family are not necessarily safe places, or reassuring images, for everyone. The home embodies a political hierarchy—often one that places adults over children, men over women—and may be a place of great insecurity and violence.

Upon walking into the lobby of the Schimmel Center on the morning of the conference, I immediately noticed several men in police and fire service uniforms. But even many of the panelists and participants clad in civvies maintained a remarkable uniformity in their discourse and worldview. Indeed, Joseph F. Bruno, Commissioner of the New York City Office of Emergency Management, contended that security and emergency management relied on “unity of effort,” in which “local, state, and federal government... the private sector, ...the not-for-profit community... utilities, regional partners, and others” all maintained “shared planning, shared objectives, shared data.” Bruno was probably echoing the key principle of “unity of effort through unified command” listed in the Department of Homeland Security’s National Response Framework.

In a variety of settings, several thinkers have shown how an emphasis on “Unity” often stifles dissent and diversity of opinion. One should consider whether unity—“shared planning, shared objectives, shared data”—may only really be maintained when the group of people allowed to speak, plan, and act are relatively uniform. There is a totalizing edge to the discourse of Unity of Effort that implies that other plans, objectives and data would be interpreted as “Against Us” rather than “With Us.” Indeed, by enshrining a “separation of powers” and institutionalizing conflict between different branches of government, one might argue that the authors of the US Constitution were nervous about Unity of Effort.

The concept of Homeland Security relies on this uniformity, as it is ultimately parochial. It divides the world into “Home” and “Not Home” and privileges the security of “Home People” over those considered the out-groups or ‘foreign’—people from “Away-
land.” In her work on post-Katrina New Orleans, Naomi Zack has shown how certain Americans have been defined outside of the Homeland, which can have a racial overlay. In its fixation on Unity of Effort, Homeland Security discourse delegitimizes the “Body Politic,” casting political dissent and otherness as a threat. In calling for “integrated” action, “shared effort” and “shared responsibilities,” during his keynote address, Tom Ridge expressed his contempt for lawyers, “policy police” and Congress. He minimized struggles between government agencies as “turf battles,” rather than genuine debates over interests and values. More alarmingly, one of the private sector panelists conflated “activists” as security threats in the same sentence as “terrorists” and “gang members.” Several scholars have argued that it is impossible to delink the rise of the post-9/11 Homeland Security discourse from the active destabilizing the lives of Muslim- and Arab-Americans, undocumented migrants, social justice campaigners, and other people who are considered the “threat within.” It has also existed simultaneously with the exportation of extraordinary and extrajudicial violence in places considered “Away-land,” such as Iraq and Afghanistan. The return of torture as a “legitimate” practice of “security” is a sobering reminder that the concept of Homeland Security is tainted by the active violation of certain people’s bodies.

By brooking no disunity and actively disciplining those “Against Us,” the discourse of Homeland Security can be oddly myopic in its fixation on the threat of terrorism, over other risks people face, from natural disasters, economic instability, disease, or crime. Political geographer Stephen Graham has argued that the Department of Homeland Security's repeated emphasis on terrorist threats” has “simultaneously undermined the preparedness and resilience of US cities in the face of catastrophic weather and seismic events.”

Finally, the word “homeland,” rooted in a romantic and ethno-nationalistic conception of territory, makes an imaginary separation between inside territory and outside territory that does not mirror the lived realities of many people. For example, the Haitian-American diaspora in New York City is deeply tied to its home country (as are many diasporas). This means they live in at least two homelands, circulating between the two, spanning both places. Many Haitian-Americans thus experienced both the World Trade Center bombings and 2010 Haiti earthquake as existential threats to themselves, their families and their cultures. To talk of one homeland fundamentally misunderstands the blurred, complex, networked identities of America’s diasporic population. For example, I consider myself simultaneously British and American—to many dual citizens like me, the notion of a “homeland” makes little sense. By focusing on land rather than people, or national territory rather than global reality as its unit of analysis, it is a discourse unable to describe the way many people negotiate multiple identities, multiple risks, multiple security strategies.

**e. Human Security**

“Disasters are about people,” remarked David J. Kaufman, director of FEMA’s Office of Policy and Program Analysis, during the public sector panel at the Summit on Resilience. “Disaster management is a social process.” In this brief comment we find a glimmer of an alternative discourse about risk and insecurity. It resonates with the emerging literature on “Human Security,” which places humans and their societies at the center, rather than corporations or territories. Drawing on a neo-Kantian humanism, advocates of Human Security stress the fundamental equality of all people (no matter their market power, nationality or “with-us-ness”), who are holders of rights and entitled to protection from violence, structural injustice, and “downside risks” such
as disasters, economic instability, and epidemics. This alternative doctrine was first expressed in the United Nations Development Programme’s 1994 Human Development Report, which is worth quoting at length:

The concept of security has for too long been interpreted narrowly: as security of territory from external aggression, or as protection of national interests…. It has been related more to nation-states than to people. ... Forgotten were the legitimate concerns of ordinary people who sought security in their daily lives. ... Will they and their families have enough to eat? Will they lose their jobs? Will their streets and neighborhoods be safe from crime? Will they be tortured by a repressive state? Will they become a victim of violence because of their gender? Will their religion or ethnic origin target them for persecution?

Instead, UNDP described an alternative. First, their new notion of security would be universal. Systems and institutions of security would be designed to be “relevant to people everywhere, in rich nations and poor.” Second, rather than hardening and militarizing social divisions, Human Security would recognize the interdependence of peoples and the global interconnectedness nature of threats. Human Security would be founded upon efforts to build and maintain a cosmopolitan social contract, a sense of shared risk, responsibility, and solidarity across social divisions. Third, security and risk management could not simply be reactive; “Human security is easier to ensure through early prevention.” This would require recognition of the embodied and socially embedded nature of security—considering whether crises occur because of social dysfunction. Fourth, Human Security would be people-centered, rooted in the diversity of human experience. This would require institutions and analysts to make an extra effort to listen to those most vulnerable and least often heard, including ethnic minorities, women, children, the homeless, and persons with disabilities or chronic disease. This implied an interdisciplinary openness to all the dimensions of how humans experience instability: social, psychological, economic, political, even philosophical, existential, and spiritual. For when we ask “why bad things happen,” this is a question of the human condition, not just of policing or damage to the bottom line. In this sense, resilience could be seen in part as a kind Durkheimian effort at meaning-making, at working out social trauma through reconciliation, contemplation, norm-building, rehabilitation, and renewal. This could involve artists, clergy, intellectuals, and journalists as much as police and military institutions.

While it has faced the criticism of being vague and difficult to operationalize, since the UNDP report, a variety of scholars, policymakers, and institutions have tried to flesh out, systematize, and institutionalize Human Security, applying it to a wide variety of contexts. In reflecting on this burgeoning field of analysis and practice, the late US Army colonel Shannon Beebe and Mary Kaldor of the London School of Economics outlined six key ways in which Human Security differed from and offered a useful alternative to traditional conceptions of security:

- The primacy of human rights
- A focus on building legitimate political authority
- The importance of effective multilateral action
- The focus on a “Bottom-up Approach,” rather than imposing solutions from afar
- Maintaining a regional focus, instead of a myopic fixation with one country
- Ensuring clear civilian, rather than military, command
I do not wish to offer Human Security as a final word. As a concept it has problems. It is often universalizing and Eurocentric. It has implicit contradictions in the tensions between different kinds of rights and entitlements. Some have accused it of often being a back-door securitization of humanitarianism and social services. Rather, my intention is to open the discussion to additional conceptions and theories of security, to show that Corporate Security and Homeland Security are not the only possible discourses.

f. Toward an Embodied Human Resilience

Pace University has dedicated itself to educating for “Global Citizenship.” This means gaining an awareness of the world beyond our immediate doorstep, solidarity with people facing insecurity no matter their race, gender, class, and nationality. In light of that commitment, as members of the Pace community, we must consider ways to talk about security, resilience and recovery that honors our location in post-9/11 Lower Manhattan, but also our place in the global context. I would like to argue that the discourses of Corporate Security and Homeland Security are inadequate to that task. They privilege those with wealth and the right passport over the vast majority of people. Instead, I believe we must construct institutions for security that take as a given the innate rights and entitlements that are a condition simply of being a human. But in doing so, we must recognize that conceptualizing and practicing security cannot be separated from the question of who is doing the securing and who is being secured. This requires an embodied notion of security—resilience with a human face. This will not be an easy task, for it requires us to think outside common discourses, to query divisions between “Us” and “Them,” to risk difficult questions. It will require contemplation, reflection, and a willingness to be reflexive—thinking about our own role in creating insecurity for others.
Lubin School of Business

Reflecting on Resilience: Thoughts on the Summit on Resilience Conference from the Perspective of a Management Professor

Ira J. Morrow, PhD
Department of Management, The Lubin School of Business, Pace University, New York, NY

Introduction

On January 11, 2012, Pace University in New York City hosted a conference titled Summit on Resilience: Securing our future through public-private partnerships. The conference was organized by Pace University in collaboration with the US Naval Postgraduate School's Center for Homeland Defense and Security and was sponsored by Boeing and Target. Rather than summarizing or reviewing the content of the conference program, this paper endeavors to discuss some of the issues or themes to emerge either directly or indirectly from the conference from the perspective of a business school faculty member, specifically in the case of the present author, from the perspective of a management faculty member who specializes in organizational behavior and leadership.

Issue 1: Defining Resilience

Resilience certainly sounds like a great quality to have, but what is it precisely? The participants in the Summit on Resilience had many interesting matters to report and discuss, but none of the speakers or panelists provided a definition of this key term. The implicit assumption seems to have been that all participants and attendees must know and agree on what resilience means. However, judging from the wide range of topics and issues presented at the conference, resilience, it seems, can mean different things to different people, and the term or concept can apparently be applied to many different entities or phenomena. In order to provide the basis for a more orderly and structured consideration of the state of resilience in our society and in our institutions, it might be useful to try to more carefully define what we are referring to when we use the term. So for example, the old, very heavy, but very resilient, Random House Dictionary of the English Language defines resilience as: 1. The power or ability to return to the original form, position, etc., after being bent, compressed, or stretched; elasticity. 2. Ability to recover readily from illness, depression, adversity, or the like; buoyant. (Stein, 1973). The latest online New Oxford American Dictionary similarly defines resilience as 1. The ability of a substance or object to spring back into shape; elasticity. 2. The capacity to recover quickly from difficulties; toughness.

Thus, one point that clearly comes across from these definitions is that the term can clearly be applied to both inanimate objects, which seems to be its original or preferred meaning, and secondarily to human beings. This is reminiscent of how the term stress was expanded from its original use as an engineering term referring to the outside forces applied to materials that could lead to breakage or failure, to its subsequent application to people. In fact, it is in the context of the topic of stress management that the issue of resilience frequently appears. Hence, taking steps to build up one's individual resilience by for example, eating properly, exercising regularly, and sleeping adequately, is seen as one of the key strategies that one
can use to attenuate the potentially destructive impact of stress on one's individual health and well-being. Such approaches are referred to by Whetten & Cameron (2002) as proactive strategies that “are designed to initiate action that resists the negative effects of stress.” Moreover, as discussed by Morrow (2008), “one form of resiliency is referred to as social resiliency, which refers to developing a supportive social network to help moderate the harmful effects of stress.” We can see so far that resilience can be related to the state of one's physical health and well-being as well as to the quality and degree of one's social connectedness. More recently, as discussed by Robbins & Coulter (2012), the term resilience has even been applied to a person's ability to maintain or to find new employment in a recession. They state, and one should take note in particular of their definition of resilience, that “the economic recession has prompted a reexamination of resilience, which is an individual's ability to overcome challenges and turn them into opportunities. A recent study by a global consulting firm showed that it is a key factor in keeping a job: A resilient person is likely to be more adaptable, flexible, and goal-focused.”

One question that emerges from a consideration of these definitional issues, and that is relevant to the material presented in the conference, is when we speak of resilience are we speaking about animate human beings or to inanimate objects, structures, and systems, or perhaps, to complicate the issue further, are we referring to a certain quality of the interaction between the animate and the inanimate? For as things stand now we can easily see how the term resilience can be applied to any or all of the following: In the personal realm, we can apply the term to individuals, to marriages, to families; in the social, sociological, and anthropological realms, we can speak of the resilience of communities, neighborhoods, cities, regions, nations, societies, and cultures; in an organizational context, resilience can be applied to employees, to groups and teams, to departments, to technology, to supply chains, to organizational performance, or to an organization's response to a particular challenge or threat; in sports and in the military, we can refer to the resilience of teams and of armed forces in response to defeat by competing teams or by enemy forces respectively; in times of war, we are concerned with the resilience of the nation; in times of recession or depression, we focus on the resilience of the economy; when suffering an illness or injury, resilience may be the key to recovery; in the face of mourning the death of loved ones, one's resilience may be the key to finding the will to go on. We can also refer to the resilience of the energy grid or to any sort of infrastructure. Ultimately, it seems that we should all be hopeful that we are living on a resilient planet, with resilient oceans, rainforests, species, and ecosystems as well. It is certainly nice to have such a convenient and adaptable word in our language, and clearly desirable for individuals and organizations to be in possession of the characteristic or quality of resilience. However, problems in communication and focus can result when a term is so widely used, and used in so many different ways and in so many different contexts. Particularly when we bring a number of speakers and panelists together for a few hours in the same room, can we really expect that everyone will speak to each other about the same phenomena in a useful and constructive fashion? If a concept can mean so many different things, and can be used in so many different ways or on so many different levels, to refer to so many different kinds of phenomena, does it serve any longer as a useful construct, analytical tool, or objective? Has the notion and concept of resilience become so watered down perhaps that it runs the risk of becoming almost meaningless or useless?

In this conference, Pace University's President Stephen J. Friedman seemed to focus on the failures and disappointments in resilience by citing the more than ten years it has already taken to rebuild to World Trade Center site, the chaotic response to the
devastation wrought by Hurricane Katrina on New Orleans, by the recent Deepwater Horizon BP oil spill in the Gulf of Mexico, referring to the disappointing response to these disasters as a “black hole.” So right from the start we are referring to a response to a vicious and intentional act of terrorism, to a powerful storm or act of nature, and to an accident or act of negligence. Is it useful to lump all of these dramatically different catastrophic events together? Margareta Wahlström, United Nations Special Representative of the Secretary-General for Disaster Risk Reduction, focused mostly on weather-related catastrophes, and was rather pessimistic as well, predicting more extremes and more unpredictability, and stating that people tend to have a short-term view about such impending problems. In the first panel of speakers, both Ivan Seidenberg, Chairman of the Board of Verizon Communications, and William Rudin, CEO and Vice-Chairman of Rudin Management Company, painted a rather rosy and upbeat picture of the state of resilience through public-private partnerships in their respective fields of telecommunications and real estate, countering Friedman’s earlier characterization of a “black hole.” However, David Shulkin, President of the not-for-profit Morristown Medical Center, while on the one hand describing yearly safety and evacuation drills in his medical center, was less optimistic about his organization’s resilience stating that they have finite and limited supplies, and that these will easily run out in a major disaster. So we see from even this small sample of speakers and panelists that what people pay attention to and what they conclude about resilience depends on their industry, or their field, or their particular area of specialization. Perceptions of the state of resilience may even come down to such basic personal dimensions as the personality of the individual participant or analyst. Is one individual merely a pessimist who sees the glass as half empty with little likelihood of being able to fill it to the top in a resilient manner, and another individual an optimist who sees the glass as half full and on the way to being filled in a resilient manner?

**Issue 2: Measuring Resilience**

As we saw from a review of several definitions of resilience offered above, most seem to focus on the idea of springing back, returning to a previous state or shape, or recovering. However, resilience was also defined in terms of overcoming challenges and turning them into opportunities. Thus we have rather passive or reactive, as well as proactive, interpretations of what resilience is or could be. So in addition to the issue of defining resilience and finding agreement as to what sort of entities or systems should the term best apply, there is the additional issue of deciding what the final outcome will be if resilience exists, and determining how or when we know that we have reached that desirable state. So, for example, if Haiti were to rebuild to exactly the way it was before the devastating earthquake hit (thus returning to its prior state or shape) would that constitute resilience? Or would we only be justified in saying that Haiti was resilient if it managed to construct much-improved housing that was earthquake resistant to replace all of its destroyed housing stock (overcoming challenges and turning them into opportunities)? If Thailand reconstructs all of its flooded factories in its floodplains as they were before, is that resilience? Or would resilience be evident only if Thailand diversified the location of its factories away from floodplains to minimize the likelihood of suffering similar losses in the future? One additional complicating issue is that each individual, organization, city, and society is at a different baseline before disasters strike, so should we perhaps best measure resilience by some percentage improvement or recovery or by some absolute agreed upon standard. Thus we clearly have a serious problem on our hands as to how to measure resilience, and deciding what yardsticks, metrics, or standards to use. Not surprisingly, whenever there are problems associated with defining and applying terms and concepts, these naturally
go hand-in-hand with problems in measurement. Without going too deeply into these murky and complicated issues, it would seem to be obvious that no universal measurements for resilience will ever be possible, and that these measurement issues will probably have to be worked out on an industry by industry, field by field, case by case, specialty by specialty, organization by organization, perhaps even individual by individual basis.

**Issue 3: Obfuscating Other Issues and Concerns by Focusing on Resilience**

When considering the utility of the construct of resilience when it comes to evaluating, for example, the health of organizations or of individuals, it is worthwhile to focus on the matter of what we really gain and what we perhaps lose when we attribute success to resilience and failure to its absence. By focusing on the presence or absence of resilience as a central cause of either organizational or personal success or failure, we may be giving short shrift to and possibly obfuscating the role of more important determinants and causal factors. So, for example, one could say that the investment bank Lehman Brothers failed because it was not resilient enough to recover from its trading losses, or that Apple became wildly successful after Steve Jobs returned to run the company because it was resilient, or that individual investors had to declare bankruptcy due to a lack of resilience in the face of underwater mortgages or in the face of being fleeced in a Ponzi scheme. But what does this really tell us that is either useful or interesting, and that would allow people or organizations to learn valuable positive or negative lessons? Thus, rather than attributing either organizational successes or failures to the presence or absence of resilience, is it not perhaps much more useful, interesting, telling, and informative to pin down precisely what the underlying issues were that led to personal or institutional success or failure? Hence, Lehman Brothers failed perhaps not because it was not resilient enough, but rather because it failed to manage risk effectively. The lesson then becomes one of how to better manage or avoid certain kinds of risk rather than the all-purpose prescription to build up organizational resilience.

**Issue 4: Evaluating the Novelty and Uniqueness of Resilience as a Societal Goal**

It seems evident that society’s interest in enhancing resilience, countering terrorism, and “securing our future through public-private partnerships” (the subtitle of the Summit on Resilience) was greatly awakened by the terrorist attacks on the World Trade Center and the Pentagon on September 11, 2001, that led, for example, to the creation of the US Department of Homeland Security and enhanced security measures in the airline industry and in many other industries and facilities. Needless to say, the desire to be resilient in the face of such attacks, and in the face of earthquakes, hurricanes, typhoons, floods, or tornadoes, either on an individual, an institutional, or a national basis, is necessary and commendable. It is perhaps human nature to feel that we are living through very trying and difficult times that call for resilience on our part. This is undoubtedly true. But at the same time it is important to remember that we are not the first generation to go through difficult and trying times, and that resilience on the part of individuals, people, nations, and societies has always been part of human history and progress even when the term resilience was not used to refer to such efforts, or when people did not think in these terms. Devastating plagues, such as the Black Death, horrendous and deadly famines, floods, earthquakes, volcanic eruptions, fires, and wars have always been part of human existence. The Civil War for example, is still by far the deadliest war in the history of the United States. One can also venture
to say that as long as there have been governments, there have been public-private partnerships used to enhance security, survival, continuity, and resilience. This, after all, is and always has been the most basic and critical function of the public sector. So the question that comes to mind is what, if anything, is really new or different about the concept of resilience or the need to secure it through public-private partnerships? These are certainly important and timely concerns, but they have always been important and timely concerns. These concerns will always manifest in different ways because of the development of new products, new services, new supply chains, new technologies, new infrastructures, new resources, new demands, new threats, new competitors, new clients, new interconnections, new knowledge, and new information. However, the unavoidable answer seems to be that there is really not much that is novel or unique when it comes to the need for resilience, for, after all, how different is it from the desire, for example, to recover, to continue, to prevail, and to survive to fight another day? Additionally, as an emerging societal interest or field of study, how different or new is planning for reliance or managing for resilience from the more established field of crisis management, a field of study that was stimulated decades ago by such crises as the Exxon Valdez oil spill, tainted Tylenol capsules, and exploding Firestone tires? The field of crisis management has for a long time been concerned with such issues as how to plan for, how to prevent, how to deal with, how to minimize the negative impact of, and how to bounce back from a possible crisis. These issues seem to overlap entirely with the issue of how to build more resilient institutions.

When thinking about the attacks of 9/11, one is naturally reminded of the last significant attack on US soil, namely the attack by Japanese forces on December 7, 1941, against US forces in Pearl Harbor. Displayed at Pearl Harbor today is a plaque that reads as follows: “FALL and RISE of the FLEET: More than two thousand Americans were killed on December 7, 1941, almost half of them aboard USS Arizona. Military installations around the island were attacked, and twenty-one vessels were sunk or damaged. Hundreds of Navy and Army planes were destroyed. In spite of this, the U.S. Pacific Fleet rebounded with remarkable speed. Rescue operations, which began immediately, soon gave way to a monumental salvage effort. Within a year, most of the vessels damaged in the attack were returned to duty. Only USS Arizona, USS Utah, and USS Oklahoma were total losses. The day after the attack, the United States Congress declared war on Japan. In the course of that war, all but two of the 67 Japanese ships of the Pearl Harbor Striking Force were sunk.” Clearly this is a fantastic example of resilience on the part of the American people, resilience moreover that could not have been imaginable without significant sacrifices and public-private partnerships on the part of all sectors of the nation.

When considering the example of the nation’s response to the Pearl Harbor attack, it may be useful to consider not only the extent to which our interest in building more resilient institutions differs from or adds value compared to the older, more established field of crisis management, but also the extent to which it differs from and adds value compared to the general fields of either management per se or leadership. One could reasonably argue that a manager is not really managing effectively or that an organization is not well-managed unless and until long-term viability, continuity, and survival is likely, even in the face of defeat, losses, reversals, and disappointment. The manager of a sports team, for example, has to be concerned about building a strong enough bench of relief or substitute players to step in for starting team players who are injured so that the team can play on and still win games and perhaps the championship. Ensuring long-term survival, which is clearly impossible without resilience, has always been the most basic goal of any organization, a goal which is...
obviously not always achieved, but a goal which any competent senior management team needs to think about. Similarly, when we speak about leadership, we have always been most impressed by those leaders who have been able to inspire their followers to fight on in the face of reversals, defeats, and tragedies. Effective leaders are effective precisely because they are able to inspire us to be resilient and to find the energy to strive, to continue, and to prevail even in the most trying circumstances. In summary then, it seems that a strong argument can be made that the issues that we encounter when we speak about building more resilient institutions have always been with us in one guise or another, and that by introducing the construct of resilience into the conversation we have not really added much value given the long-standing concerns of such fields as leadership, general management, and crisis management.

Conclusion

The issues discussed in this paper were stimulated by my attending an interesting and thought-provoking “Summit on Resilience” conference held at Pace University in New York City on January 11, 2012. One of the goals of such a conference is to stimulate thinking, and hopefully critical thinking, on the part of participants. This paper discusses the issues of unclear definition and measurement related to the construct of resilience, and the possible obfuscation of more basic or important underlying problems or strengths when we focus on the absence or presence of resilience to explain failures and successes. The paper also considered the issue of the novelty or uniqueness of society’s interest in building more resilient institutions, along with the desire to bring it about through public-private partnerships. Our interest in enhancing resilience is seen here as not being clearly distinguishable from other, older and more familiar concerns such as how to manage or how to lead organizations and people well, or how to manage crises effectively.

References


Beyond Disaster Management: Adaptively Resilient Re-Development

Nicholas A. Robinson
Pace Law School, White Plains, NY

The Pace University “Summit on Resilience” approached, but did not address, a fundamental question posed by Pace University President Stephen J. Friedman: “When disaster hits, what happens after law enforcement and humanitarian efforts?” The panels at the Resilience Summit ably dealt with how first responders address a disaster, and how companies and governments prepare for responding. On the scale of the recovery from the 9/11 disaster in lower Manhattan, most agreed that government and private sector rebuilding worked responsively and collaboratively within existing legal and economic systems. Few speakers went on to probe what governments and other stakeholders can or should do to reset social and economic systems disrupted by a major disaster wider in scope than 9/11.

Debates at the Pace Summit demonstrated the need for further study about how socio-economic and governance systems might be rethought in order to enhance their resilience in the wake of disasters. This essay explores some of the questions that might usefully address re-development in the wake of large-scale disasters.

The Indus River Valley was a model of sustainable development, benefitting from a treaty brokered by the World Bank between India and Pakistan in 1960 to ensure a peaceful allocation of Indus River waters. The Valley had schools, clinics, and small dams to supply irrigation and generate electricity. It had a high standard of living with rural electrification. These remarkable achievements by several generations—and the livelihoods of rich and poor alike—were obliterated in 2010-11 by two years of massive floods that wiped out 1,400,000 acres of farms, roads, bridges, and human settlements. Neither Pakistan nor the global aid community has the resources to rebuild the communities and economies of the Indus River Valley.

The recovery of much (but not yet all) of New Orleans after Hurricanes Katrina and Rita, and the still on-going recovery of lower Manhattan after 9/11, are attributable to the fact that the areas devastated were far smaller than the vast Indus River valley. Moreover, the capacity of both federal and state governments to respond from outside the disaster zone was hardly affected by the disasters. The United States has yet to experience a disaster of such vast proportions that would impair its capacity to respond.

What if the United States had to reallocate its budget and personnel to address the recovery and rebuilding of an area comparable in size to that which Japan had to evacuate, and has still not yet determined how to rebuild, in the aftermath of the March 2011 Tsunami and Fukushima Daiichi nuclear power plant disaster? In Japan, 200,000 were evacuated and many may never be allowed to return to their homes. In the wake of that disaster, social unrest is reshaping once settled laws and investments and development programs for how electricity is generated or where coastal development will be allowed, among other issues. One may reflect on why the Great Hanshin Earthquake of January 1995 that demolished Kobe was “small” enough to let that city rebuild (with external help) but the recovery from the Fukushima Daiichi disaster remains elusive.
As President Friedman asks, “Part of the matter is that preparation for rebuilding tends to be viewed as a security issue. But it's not a security issue, it's an issue of business continuity—and life continuity. And the scale is too small. Lots of players know how to build a building, but how do you rebuild a whole city? What’s the right, easy way to finance the restoration? If a dirty bomb went off in lower Manhattan that contaminated everything, response would require an unprecedented level of cooperation. The bottom line is this: Rebuilding issues are indeed local but there is no conceptual architecture. Everything is invested from scratch every time. There are few templates, few tool boxes, and few sets of procedures. And that gap is global.” If the containment vessel of the Indian Point nuclear power plant breached, and the radioactive plume spread 20 miles south to contaminate Manhattan, how could the city evacuate millions or recover after an evacuation? Even if the plume avoided Manhattan and contaminated Westchester County to the east, irradiating an area through to Interstate Highway 95, or Rockland County, to the west, contaminating the NYS Throughway (I-87), how could governments restore these suburban counties and the regional economic corridors for commerce? Even if security averts terrorist acts and technologies hold up, meteorologists predict that another major hurricane will hit Manhattan with an impact more devastating than those of the major storms of 1938, 1944, or 1954, because the city has developed more intensely.

Conceptual Frameworks for Re-Development

It is instructive, therefore, to explore briefly what society needs to study in order to begin to prepare for, adapt to, post-disaster conditions and to rebuild the infrastructure to restore socio-economic systems. Governments can learn from some of the preparations that companies are undertaking to do so. Universities can learn from the pioneering programs in education about sustainable development management practices. While related, the knowledge and skills associated with long-term and adaptive recovery from large disasters are different from the systems of emergency responders concerned with security and public safety.

There are several dimensions to studying the conceptual architecture essential for redesign and rebuilding following a disaster. These are (a) planning and establishing new parameters for post-disaster adaptation, (b) establishing robust public participation and equitable procedures to accommodate competing interests, (c) allowing all interests to accept and become a part of the new design and phasing the rebuilding over a realistic time frame, and (d) accommodating the merger of the new systems with the older systems, and re-iteratively adjusting both integral resilience techniques into post-disaster redevelopment. Some of these dimensions pose entirely new challenges, as in creating the new adaptive planning regimes. Others are well understood but not yet applied to post-disaster adaptation and rebuilding, as in the public participation techniques and procedures. Because land use decision-making is the primary responsibility of state and local governments under the federal system of the U.S. Constitution, the responsibility to shape these four dimensions is a duty that state governors and legislatures need to address.

New measures to merge state economic development planning into disaster redesign planning remain to be conceived and established. None of these state agency functions has been so coordinated as yet. A comparable reorganization was undertaken in 1978 for federal disaster relief, as when the Federal Emergency Management Administration was created by President Carter's Executive Order. The states all have economic development agencies, agencies for agricultural and markets, energy redevelopment
and supply authorities, environmental conservation agencies, health departments, social services, and educational departments. They all contribute to the mix of rural, suburban, or urban development. None has ever worked together to pool their mandates to contribute to post-disaster rebuilding. Since every state is geographically and culturally unique, how each state designs its disaster recovery regimes will vary. A coastal region faces different challenges than a mountainous place.

From a national perspective, the resilience of the American economy would be enhanced if all states were to develop their integrated disaster re-development plans.

Encouragement by the federal government could motivate action nation-wide at state and local levels. For example, Congress and the president could design a federal program of grants to fund statewide planning. Such federal assistance programs to stimulate nationwide planning launched the successful Coastal Zone Management (CZM) Program under the Department of Commerce in 1976. The CZM systems prepared coastal communities to anticipate storm surges and prepare for coastal floods at the same time as planning for the economic development of their coastal zones. The CZM Program engaged both local governments and state agencies. An earlier and also successful federal program was the U.S. Soil Conservation Service under the U.S. Department of Agriculture. The SCS worked directly with local land owners and governments during the huge disaster of the “Dust Bowl” during the Great Depression and then for another 50 years. The SCS restored the soils of America and helped instill new parameters for land development that averted a repeat of the natural disaster, and state soil conservation programs continue this work. So there is a role for the federal government in enabling local and state governments and property owners to cope, but ultimately the locals need to act.

In an exploratory essay such as this, one can only scope out the issues in each of the four dimensions that belong to local and state authorities. Follow-up studies to the Pace Summit could usefully address each of these four distinct challenges.

**Adaptive Planning for Post-Disaster Recovery**

Land use planning involves multiple participants. How shall potable water and sewer waste-water systems be designed? What transportation systems should be provided? Where should parks and wildlife corridors and habitats be sustained? What sources of electricity can serve the regions? How will food be delivered and from where? Where will different types of housing, school systems, and recreational areas be situated? Sophisticated land use planning techniques have emerged to mediate between these often competing demands, such as the use of environmental impact assessment procedures. Traditional land-use planning, zoning ordinances, and spatial development laws have matured greatly since the Second World War, and have strong professional foundations in practice, and yet many localities still do not yet have comprehensive plans. Few have enacted local laws adequate to the economic demands that confront them in the Great Recession of 2008, and virtually none have plans for post-disaster redevelopment.

Moreover, existing specifications for building codes and spatial planning have been rendered obsolete by changing physical environmental conditions. The rising sea levels require a retreat from the coasts in all coastal regions; New York City has promulgated PlaNYC, a plan and planning process designed to make initial preparations for sea level rise, but Albany and all other coastal communities largely ignore this present challenge. Perhaps state and local governmental leaders mistakenly assume the coastal threats like only in remote future. Yet predicted the storm surges enhanced by higher sea
levels will cause disasters, as the U.S. Weather Service’s storm surge maps for the Atlantic coast reveal. Elsewhere, new flood levels and new designs for storm drains are required to address the greater volumes of storm water associated with the heightened precipitation of current weather patterns.

Thus, disaster-rebuilding planning faces an entirely new mix of challenges. It must anticipate the new physical conditions of a region, and not rely on past conditions. Existing land-use development standards no longer provide a foundation adequate to sustain future land-use practices. In addition, the rapid emergence of distributed energy regimes and “smart grids” means that entirely new ways of providing energy to redesigned local developments must be anticipated and deployed. Comparable reforms exist for supplying potable water and coping with waste. Efficiencies of “old” infrastructure, and the costs sunk into those systems, need to yield to a new generation of technologies that will fuel cities in the coming years. The specifications appropriate for “rebuilding” after disasters strike will be those of tomorrow, not yesterday. The planners need to have green technologists in their midst.

Margareta Wahlström at the Pace Resilience Summit described how the United Nations is helping nations’ development planning and response coordination systems through the mechanisms of international cooperation. The Hyogo Framework for Action 2005-2015 has led nations to strengthen disaster response and climate change adaptation planning. It has five components: (1) governance—planning for a strong local and national response to disaster; (2) risk identification—assessing and monitoring risks to prepare; (3) knowledge—building capacity to respond; (4) reducing underlying risk factors, whether physical, environmental or social; and (5) strengthening disaster response preparedness. This Hyogo Framework, however, is not well meshed into socio-economic development. New “sustainable development” planning needs to be integrated with enhanced emergency response planning.

From this perspective, the United Nations’ planning systems mirror the same problem at the national or local level. Significant attention is devoted to immediate disaster response, but little to the longer-term problems associated with relaunching the sustainable developments necessary in the recovery stage. As the United Nations approaches the World Conference on Disaster Reduction in 2015, it should look to a better integration of its planning with that of the UN Economic and Social Council. In like vein, the outcomes of the UN “Rio+20” Conference in June 2012, should examine how the systems for sustainable development of Agenda 21 can be integrated into the post-Hyogo planning.

There is reason to believe that nations will cooperate to enhance resilience for both disaster relief and post-disaster sustainable development. The United Nations system is founded on the obligation of states to cooperate with each other. Cooperation is at once an ethical norm, a duty of good neighborliness, which is a customary law norm found within all legal systems, and a principle of International Law. Governments and individuals alike instinctively cooperate when providing mutual aid for disaster relief, and strive to do so by facilitating each other’s socio-economic development. From the perspective of Darwinian evolution, the human disposition to cooperation increases as the problems challenging human well-being also increase. This is the scientific finding of Samuel Bowles and Herbert Gintis, in their study of human social evolution. They demonstrate how humans have evolved and matured patterns of cooperation among themselves throughout the Holocene Epoch. A part of their evidence is found in the ancient roots of this ethical norm. It exists in the “golden rule” found throughout religions and philosophies. Mark Pagel's natural history of human cooperation
corroborates how humans have come to rely upon this fundamental human trait. Leadership in universities, companies, religious institutions, and governments alike have opportunities to cultivate our instincts to cooperate, and in particular to join together to redevelop after disasters.

Robust Public Participation and Access to Justice

Disasters produce refugees and social disruption. Once the immediate disaster has passed, rebuilding is more than just a physical construction question. At essence, the process of developing anew after a disaster presents questions of reuniting families, and neighborhoods and social relationships. It entails restoring livelihoods and the building blocks of local economies. It envelops “winners and losers.” For social order to be restored, all stakeholders, all individuals, and economic interests need a place at the table to plan their futures. Governments have developed a suite of rights and rules and procedures to do so, and must now examine how to ensure due process in the new construction phases after a disaster. The norms for environmental justice, for civil rights and for human rights, are well elaborated. What special means must be provided to ensure that these rights are observed in the post-disaster phases?

Fundamental democracy—a civic polity—requires that simple and fair listening and consulting processes be in place at once after a disaster. Without such procedures, social unrest will ensue and recovery will be delayed or disrupted. Planners need to provide for public participation in recovery decision-making. For ill-equipped and recovering refugee populations, ombudsmen may be needed to advocate for those who lack the capacity to do so themselves. Their roles need to be defined and made legitimate before the disaster. For example, after Hurricane Katrina, upper and middle class homes were rebuilt, but the voices for affordable housing had inadequate access. Social inequities were arguably exacerbated in New Orleans.

The planning process for public participation is well known. Strategic environmental impact assessment is already a part of sophisticated planning. The UN Declaration of Rio de Janeiro on Environment and Development in 1992, in Principle 10 calls for all nations to provide access to information, procedures for public participation, and access to justice in environmental decision-making. These provisions are a part of the federal and state Freedom of Information Acts, a part of our environmental impact statement procedures, a part of our notice and comment rule-making under the federal and state Administrative Procedure Acts, and are subject to judicial review. Some agencies, such as the NYS Department of Environmental Conservation and the U.S. Environmental Protection Agency, provide “public participation” specialists to assist the public in know-how to exercise their rights to participate. Are such services even more essential after community systems have collapsed? Post-disaster development will need to conform to the standard elements of due process of law. How to do so, in the context of clearing destroyed areas and deploying new development, poses complex and little-considered challenges. Due process of law provides well-accepted practices that need careful study to determine how that may best be adapted and integrated into the planning and process of post-disaster reconstruction. This remains to be done, and until it is done, recovery processes will be flawed and ridden with more controversy than they deserve.

Phased and Adaptive Sustainable Development

Many substantive reforms are needed to facilitate post-disaster new and sustainable socio-economic development. Pace Law School’s Land Use Center has researched and
assembled examples of local land-use reforms that have been enacted to cope with sea level rise and other physical changes to the ambient environment. The reforms that the Pace Land Use Law Center has studied in the U.S., however, are marginal compared with the comprehensive adaptive disaster preparations of the Netherlands. The Dutch government has developed a multi-year plan to deal with floods from the Rhine River Basin and storms from the English Channel in 2008. The Netherlands had vast flooding in 1953, which extended over one-third of that nation, and thus takes seriously the threat of repeated floods. The Delta Commission made 12 programmatic recommendations to redesign national development to become resilient and reshape both rural and urban areas with a phased plan of action. Landowners at high risk are being obliged to sell their lands to the government and move; projects to cope with flood conditions are scheduled for the coming years through 2050, and further projects through 2100. The Dutch are the first national government to implement a phased and adaptive new sustainable development regime that plans to avert disasters where possible and cope with future natural disasters where necessary.

Throughout the U.S., local governments seek to manage development in flood plains using practices of the 19th or 20th centuries to ameliorate flooding with levees and other practices built up over the years. California’s Central Valley is particularly vulnerable, and a flood plain plan is required, but little has been done to alter historic “business as usual” patterns of land use. States and local authorities protect freshwater wetlands, but rarely expand them or integrate their capacity to absorb flood waters into a comprehensive floodwater prevention and adaptation process, despite recommendations to do so. In his study, *Losing Ground, A Nation on the Edge* (2007), Pace Law School Professor John Nolon makes clear the sort of pervasive redesign that both the private and public sectors will need to adopt if they are to cope effectively with disasters. Suffice it to say, few of the lessons of past disasters are being heeded by Congress and most agencies in Washington, D.C., and in most state capitols.

Fundamental to building resilience for disaster recovery is securing the financing needed, which in turn requires more study of the adequacy of insurance programs. Most commercial insurance assumes rebuilding “as is,” and where an asset was located. Most self-insured governments make the same assumptions. In coping with large-scale disasters, both premises are unrealistic and are unsustainable. Without a significant increase in the scope and availability of insurance, new insurability standards and higher premiums, society cannot finance the new sustainable development needed after a disaster. Government self-insurance is wholly unrealistic in large-scale disaster; there is no elastic source of funds to pay for long-term redevelopment, after the immediate disaster relief stage.

Too much attention has been paid to insurance that compensates the injured so that parties can rebuild in the same place, face the same risks again, and require a further “bailout” once the next repeat disaster hits. This is the criticism of the federal flood insurance program. Too little attention has been paid to other types of insurance, such as expanding Index Insurance programs that cope with agricultural disasters, or to how to expand insurance programs to the vast areas of the world where literally no insurance is available. The lack of insurance makes the world’s contemporary development model unsustainable.

Despite a recognition that insurance has a central role to play, the Recession of 2008 and the regulatory reforms for credit and financial institutions have distracted the insurance industry from working with state insurance commissions to expand coverage to deal with disaster recovery. The provision of adequate insurance deserves priority
attention from both the public and private sectors. The disruption of supply chains and manufacturing globally because of the vast flooding of Bangkok from three back-to-back typhoons in December of 2011 underscores this need.

One reason for the pervasive neglect of post-disaster planning and expanding insurance capacities to cope may be because of society's concentration of attention on 9/11 and the threats of unknown possible terrorist disasters, as opposed to the known risks of natural disasters. Another more powerful reason is inertia, and the comfortable acceptance of “business as usual” practices. In addition, insurance focuses on compensation for catastrophic loss and is not yet designed for adaptation and building sustainable socioeconomic recoveries. Concepts of insurance need to be rethought, and realigned with a new kind of phased planning that allows for post-disaster recovery. A final reason is that economic development is a prerogative of local governments, and they have yet to embrace the environmental management systems needed for sustainable development, much less to prepare to cope with the effects of climate change. These problems are parts of the equation for post-disaster adaptation, and they deserve study also.

For a new substantive field of post-disaster development to take hold, society will need to build resilience into all its undertakings.

**Integration the New with the Old: The Resilience Principle**

Prevailing patterns of “business as usual” assume that recovery after a disaster will take place. Little is planned about how to do so, since one cannot know when or where a natural disaster will strike. But the experience with all disasters demonstrates that measures can be taken to avert and prevent the harm, or magnitude of damage, inflicted by a disaster. Moreover, society can design ways to more effectively “bounce back” quickly after a disaster. This is the essence of resilience. If there is one step that society should take now, to address the question that President Friedman has posed, it is to acknowledge and embrace the principle of resilience.

As a principle of law and management, “resilience” is derived from that trait of human nature, which is to be resilient. As a species, humans are resilient; humans save for a rainy day, design backup systems, and cover themselves. But at the same time, humans take unnecessary risks, gamble or seek the hyper-efficiency of “just in time” delivery in manufacturing processes. Environmental Management systems have been designed to provide the resilience when companies or other institutions may seek to take undue risks, without prior analysis or care.

Environmental management systems mimic natural systems. Like all species, humans find resilience in ecosystems. Ecologists and social scientists have identified and elaborated this principle of resilience. Understandings of resilience have entered into public policy discourse as well. The Intergovernmental Panel on Climate Change (IPCC) defined resilience as the “amount of change a system can undergo without changing state,” and the UN Development Programme has termed it “a tendency to maintain integrity when subject to disturbance.” Studies can assess the socioeconomic roles that reliance serves in human communities, just as is done in studies of biological communities through ecosystems. Cities that survive and prosper over generations, like London, Singapore, or New York, are said to be resilient. Attributes of resilience can be studied and replicated.

In order to engrain sustainable post-disaster adaptation onto existing governmental systems, environmental management systems should aim explicitly to enhance resilience,
and to establish metrics to track resilience. Pragmatic adaptation to changing conditions can enhance resilience.

**Moving Ahead: A Next Generation of Studies**

Institutions with resilience, such as great cities, universities, or religious orders, reinvent themselves. Resilient systems embrace and adapt to changing conditions. After the first earthquake, a vase shaken off its place may be placed again back on a shelf, but after it survives a second quake, it seems folly not to place it on the floor. We forget at our peril. Three-foot tall stone tablets were erected in Japan to warn about Tsunami wave heights that occurred in 1611 and still stand today. These sturdy warning tablets, from one generation to another, were ignored by residents of the Fukushima coast. New developments were built, behind the false security of sea walls erected despite the tablets’ message. Resilient systems compensate for human tendencies toward complacence, and build in systems to keep long-term memories alive. The Dutch remember 1953, and this motivates their preparedness today. A floodplain “remembers” the last flood, and a scientist can discern its historic contours, although the general public, or short-term real estate developer, may forget.

Post-disaster redevelopment systems do not yet truly exist. In their place, humans, companies, and governments muddle through. The current focus on security-related disaster preparedness is only a first phase of needed social reforms. The next phases will need to examine comprehensive adaptation planning for the post-disaster long-term sustainable development of the entire community. A society’s preferences in the coming phase should be informed by scientific knowledge; studies should be undertaken widely in the wake of anticipated or experienced environmental disruptions. To determine what human society wants its post-disaster recovery to be, studies should assess what practical aspects of resilience can be designed and deployed.

The Pace Summit on Resilience has laid a foundation for further studies that will enable societies to design their post-disaster lives. As President Friedman observed, this is all about more than just business continuity, it is about “life continuity.” The agenda for a next generation of studies is taking shape.
Protecting the Public: Nursing’s Call to Action

Marie Londrigan, PhD
Lienhard School of Nursing, Pace University, Pleasantville, NY

History informs us that disasters, either natural or human-made, occur despite the best prevention plans. Thus, a society’s ability to assess its communities to determine their areas of weaknesses and strengths and subsequently to develop and implement strategies for prevention of catastrophic events is critical. A society and its people must also be able to respond and engage in activities to rebound and rebuild. The management of disaster events, therefore, comprises not only preparedness, but also the ability of a community or society to respond, mitigate the effects of the event, and reduce loss, all the while taking steps to prevent future events (Department of Homeland Security, [FEMA], 2011). Lessons learned from the disaster experience will serve to enhance and strengthen the way in which future disasters are managed.

Nursing has always been at the forefront of disaster response, taking on active roles to protect and serve the public in times of need. The purpose of this paper is to consider the early role of nurses in times of disaster, explore the ongoing development and enhancement of contemporary society’s response to disasters, and to examine the place of contemporary nursing within a larger public health initiative to serve and protect the public during times of disaster management.

Looking Back

There is much historical evidence of nursing’s participation during times of disaster. Academics, including Mann Wall and Keeling (2011), discuss specific instances in history when nurses responded to public need during and after disasters. Through the lens of nursing history, these authors offer the reader a glimpse into the past to explore and gain an enhanced understanding of the critical role that nurses assumed as they provided prompt care to the ill or injured. Nurses took action during the 1878 yellow fever epidemic in Mississippi, the Johnstown Flood of 1889, the Galveston Hurricane of 1900, the flu pandemic of 1918, the Cocoanut Grove Nightclub fire of 1942, and the Texas City ship explosion of 1947, to name just a few.

The Jacksonville Yellow Fever Epidemic of 1888

During the yellow fever epidemic of 1888, local care efforts were overwhelmed and the result was high mortality rates. The medical director of the local hospital remembered how the nurses at Bellevue Hospital in New York City worked to meet the needs of the ill and dying, and how these trained nurses had the potential to provide the needed services to those afflicted with yellow fever, also known as the “Yellow Jack.” Nurses and students traveled to Jacksonville, Florida, from New York and other locales. Together these nurses worked collectively, “standardizing treatment protocols in the face of massive numbers of victims” (D’Antonio & Whelan, 2004, p. 67). Contemporary accounts demonstrate that locating and traveling to the people who needed help was challenging. Consider this example: Colonel F. R. Southmayd, secretary of the Red Cross Society of New Orleans, was making his way to Florida from New Orleans with a group of nurses when he had to direct 10 of them to jump...
from the moving train in torrential rain so that they would be able to find their way to those in need (Kernodle, 1949).

The Flu Pandemic of 1918

The “Spanish flu” pandemic began at the height of World War I, with the first wave striking early March 1918 (Watanabe & Kawaoka, 2011). During the 1920s, the death toll was estimated at 21.5 million people, but later global mortality estimates rest between 30 and 50 million, with 675,000 Americans among the dead (United States Department of Health and Human Services, n.d., par.6). At the time the pandemic struck, many nurses and physicians were deployed to aid the war effort and the country had a shortage of front-line responders. The following account depicts how individuals involved, such as Paul Lewis, a virologist, were caught off guard by the ferocity of the illness:

The clinicians now looked to him to explain the violent symptoms these sailors presented. The blood that covered so many of them did not come from wounds... Most of the blood had come from nosebleeds. A few sailors had coughed the blood up. Others had bled from their ears. Some coughed so hard that autopsies would later show they had torn apart abdominal muscles and rib cartilage (Barry, 2004, p.2).

As scientists worked to determine the causative agent of the catastrophic illness, others dealt with how to provide care for those stricken, often outside the controlled hospital environment. It was noted that the virus attached in cycles, from the appearance of the first case, to the peak, and then abatement. The American Red Cross and the Public Health Service attempted to concentrate nurses and doctors in areas when the disease was peaking, when a community was in most need. As noted earlier, there was a shortage of nurses, yet nursing care was critical. “What could help, more than doctors, were nurses... Nursing could give a victim of disease the best possible chance to survive. Nursing could save lives... But nurses were harder to find than doctors” (Barry, 2004, p. 319). The demand for nurses was so urgent that massive recruitment drives took place. “[R]ecruiters had a list of all nurses in the country... Those recruiters now pressured nurses to quit jobs...doctors to let office nurses go, made wealthy patients who retained private nurses feel unpatriotic, pushed private hospitals to release nurses” (Barry, 2004, p. 320). Those nurses active during the pandemic again found travel to be a significant obstacle to providing care. Nurses called to the lumber camps in northern Michigan, for example, would travel 20 to 30 miles at night through deep woods only to find that they then had to employ handcars to reach their patients (Kernodle, 1949). They would find 30 or 40 cases of influenza, as many as 10 men with a high fever huddled together in one log cabin. In this region, one person out of every 50 died.

Moving Forward

These two historical examples portray nurses as front-line responders attempting to provide care to its victims. Reflecting on how nurses conducted themselves, within the larger context of the disaster and alongside other providers, offers information for the development and implementation of improved practices in a contemporary world that has greater needs and greater complexities. For example, reflections on past practice have informed the profession about the need to develop specific competencies so that nurses are better prepared to respond during disasters. These will be highlighted later in this paper. To be able to look back, reflect, learn, and apply these lessons will assist all planners and responders as we move forward collectively in the development
of disaster management processes that involve sustained preparation, response, recovery, and rebuilding. This reflection is a continual process. As Dimitruk (2005) noted, “Fortunately, the lessons learned from Katrina and Rita are being collected in an unprecedented effort to capture and disseminate hard-won know-how” (p. 64). These lessons from the past strengthen best practices of today.

**Public Health**

In their response to disasters, nurses exemplify the concept of public health. Public health is “the science and art of protecting and improving the health of communities through education, promotion of healthy life styles, and research for disease and injury prevention” (Association of Schools of Public Health, n.d., par.1). An essential component of public health is the protection of the public. So what does this very broad statement mean, and how are these statements embodied with particular reference to disaster management? Building on lessons learned from past disasters, much work over the past decades has been committed to efforts to build a safer and healthier population. One outcome of this work was the development of the “Ten Essential Public Health Services,” by the Public Health Functions Steering Committee (U.S. Department of Health and Human Services [DHHS] Public Health Functions Steering Committee, 1994). This framework outlines the responsibilities of local public health systems and strategies for building a stronger, integrated public health system capable of ensuring sustained public health even in times of disaster.

Each of the 10 essential services falls under one of the “three core functions” of public health: assessment, policy development, and assurance (Institute of Medicine [IOM], 1988). Assessment includes skills needed for the systematic collection of data and analysis of data for early identification of health problems and/or the identification of potential problems. Policy development, based on evidence, serves to facilitate the correction of issues or problems. Finally, assurance requires that public health agencies provide services directly or through other private or public agencies (Truglio-Londrigan, 2011). Figure 1 provides a visual representation of these three core functions and the corresponding essentials of public health. This framework emphasizes improving the health of the population and also protecting people from natural and human-made disasters. If prevention is not successful, then the emphasis is to implement a disaster management process to limit harm and to rebuild.

In the 21st century, there has been recognition that our nation’s ability to respond and protect the public may not be as comprehensive, integrated, and seamless as needed. Building upon past practice, the National Health Security Strategy (NHSS) was developed to enhance our nation’s capabilities, response, and recovery (U.S. Department of Health and Human Services/Public Health Emergency, 2011a). The NHHS has two key goals:

- Build a community of resilience;
- Strengthen and sustain health and emergency response systems.

Ten objectives are defined to move the U.S. disaster response capability toward the achievement of these goals (U.S. Department of Health and Human Services/Public Health Emergency, 2011b). These ten objectives are listed in Box 1.

The Ten Essential Public Health Services and the Three Core Functions serve as a guiding framework for the health agenda known as “Healthy People 2020.” Healthy People 2020 is a continuation of a previous initiative launched in 1979 when the Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention
was released, setting out health goals for the nation. Every 10 years, this initiative is reviewed and updated. The most recent report, *Healthy People 2020*, was released the fall of 2011. This ongoing work documents the evolving nature of public health through the systematic use of overarching goals, topics, and objectives that facilitate action. (Healthy People 2020, U.S. Department of Health and Human Services, 2012). The Healthy People 2020 initiative lists new objectives in the area of preparedness that were based on the national priorities set out in the National Health Security Strategy (NHSS) presented earlier. In addition, each of these objectives is clarified by illustrating interventions and resources available to achieve preparedness.

*Figure 1: Three Core Functions of Public Health and Ten Essential Public Health Services*

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The Collective Work of Many
Throughout these reports, there is frequent reference to partnerships, coalitions, consortiums, and collaborations. To ensure the health and well-being of the public, communities, organizations, and professional specializations must share responsibility. An Institute of Medicine report (2003) talks about the collective endeavor of multiple individuals and organizations and calls these participants “actors.” These actors are in the public sector at local, state, and federal levels, as well as in the private sector, such as healthcare delivery systems, academia, and communities of interest such as spiritual organizations and businesses. Shared responsibility among all individuals and all sectors of a community (U.S. Department of Health and Human Services/Public Health Emergency, 2011c) is discussed in the literature on disaster management with reference to the potential for enhanced capacity. For example, Savoia, Rodday, and Stoto (2009) noted how local departments of health that worked to organize coalitions were more likely to achieve their preparedness goals. As a nation, our understanding of preparedness has led us to a point at which there is conscious recognition that no one person or discipline either can or should be solely responsible for any part of the disaster management process (Jakeway, LaRosa, Cary, & Schoenfisch, 2008). The responsibility for preparedness, response, and rebuilding is complex and lies not only with the government, but with “active, engaged, and mobilized community residents, businesses, and nongovernmental organizations” (Nelson, 2007, p.59). Nurses of all specializations, not only public health nurses, have demonstrated time and again a readiness and willingness to take on this responsibility as the historical and more contemporary exemplar previously noted illustrates.

Public Health Nursing
Public health nurses render care to individuals, families, and populations within designated systems and communities. The goal is to protect and serve, with emphasis on health promotion, disease and injury prevention, and risk factor identification. Public health nurses employ multiple strategies to accomplish these goals. These strategies include: surveillance, case finding, disease and health event investigation, outreach, screening, referral and follow-up, case management, delegated functions, health education, counseling, consultation, collaboration, coalition building, community organizing, advocacy, social marketing and policy development and enforcement (Wisconsin Department of Health Services, 2011). While public health nurses emphasize health promotion and disease prevention initiatives, this is not the limit of their activities. Public health nurses practice with an emphasis on care and protection of the public, and this includes times of disaster when they provide front-line care with regard to the core services of public health (Jakeway, LaRosa, Cary & Schoenfisch, 2008).

All nurses, however, bear the responsibility of disaster response, not only public health nurses. In fact, the Code of Ethics for Nurses (2001) clearly articulates, in provision eight, that the nursing profession “is committed to promoting the health, welfare, and safety of all people” (p. 23) and that nurses have a responsibility “to be knowledgeable about the health status of the community and existing threats to health and safety” (p. 24). Consider a nurse working in a long-term care facility. What is this nurse’s responsibility to the older adults living in the community when there is a hurricane? What is the nurse’s responsibility when a wildfire threatens a group home for adults with developmental disabilities? What is the responsibility of home-care nurses who know that patients need them even though there is 13 inches of snow already on the
ground? What is the responsibility of a nurse when there is a call for aid after a terrorist attack? In these scenarios, all nurses may respond to the call. Box 2 provides a vivid example of how one nurse has assumed such responsibility and responded to this call.

Nurses work with individuals across the lifespan and provide care, within diverse environmental contexts, to individuals who present with a vast array of health conditions. As a profession, nurses have the capability of enhancing the responsiveness and resiliency of a community, state, or government. According to the U.S. Department of Labor Statistics (2009), registered nurses account for 2.6 million jobs, with a projection of 3.2 million by 2018. As the profession grows in numbers, there is potential to expand and enhance nursing’s contribution to the disaster management cycle and, most certainly, in the event of a disaster, to increase the surge capacity. The U.S. Department of Health and Human Services/Agency for Healthcare Research and Quality (AHRQ) defined surge capacity as the “health care system’s ability to expand quickly beyond normal services to meet an increased demand for medical care during a large-scale public health emergency” (2009, par.1). Is nursing ready to contribute to this surge? Are we personally and professionally prepared? Some have identified several issues and suggest there is need for improvement.

Preparing a Profession

As Peterson (2006) noted, “Disaster response—at the best of times—is orchestrated chaos” (par.5). To avoid this chaos, preparation is necessary, from both a personal and a professional perspective. All nurses need to be willing to acknowledge that disasters, even with prevention plans in place, may occur. To this end, how prepared are nurses individually? Do they have personal plans to address potential issues with regard to their own personal life and their family? Are they professionally and educationally prepared to respond? Are they listed on registries of emergency responders? These registries have been developed to enhance capacity by creating a mechanism to identify health professionals at the ready (Peterson, 2006). All nurses have the basic knowledge, competencies, and skills, developed through their education and experience, to respond in the event of a disaster, but the complexities of disaster scenarios raises the question: Does nursing education provide the basic competencies for disaster nursing, and are practicing nurses really prepared?

Some professional bodies have addressed this issue by looking at whether nursing students receive the basic knowledge, competencies, and skills relevant to disaster management. The Nursing Emergency Preparedness Education Coalition (NEPEC), previously known as the International Nursing Coalition for Mass Causality Education (INCMCE), was founded as a “response to the recognition of the need for nurses to be more adequately prepared to respond to mass casualty events” (n.d., par.1), and its vision is to “prepare every nurse to serve people and communities in a disaster or emergency” (n.d., par.3). Members include nurse academicians, as well as government, military, and specialty organizations from the United States and Europe. In 2003, this organization conducted a survey of deans and directors of nursing schools, searching to identify the role of emergency preparedness within nursing curricula. The survey found limited specific content in nursing curricula; in fact, the mean number of hours devoted to disaster preparedness content was four hours. In addition, the deans and directors expressed a concern that nursing faculty were not prepared to deliver this content (Weiner, Irwin, Trangenstein & Gordon, 2005). Since then, many nursing programs have responded, adding emergency preparedness to nursing program curricula. The effectiveness of the new content remains uncertain. Is the content integrated throughout the curriculum or is it an add-on assignment in the community
courses? Is the content delivered from a team or interdisciplinary perspective, considering the cues from the Institute of Medicine report (2003) calling for collective endeavors? Is the content delivered as a simulation in which action stimulates critical thinking?

In an attempt to address the need for preparedness, the NEPEC (2003) drew up the Educational Competencies for Registered Nurses Responding to Mass Casualty Incidents, in the belief that all nurses must have a minimum level of knowledge and skills to respond to a disaster event (NEPEC, n.d.). The presence of volunteers who do not possess specialized skill and training may create challenges during a disaster response. Nurses who are committed to contributing to disaster preparedness will best serve the public by listing on registries, becoming certified in disaster management, and achieving competencies based in best practice (Weiner, 2006).

Conclusion

Nursing is a resilient profession in many ways. This resiliency is reflected in the growing numbers of entrants to nursing, and is also reflected in nursing practice, most importantly in our ability to practice with individuals across the lifespan, in all areas of specialization, and within a variety of environmental contexts. Nurses have historically been active during disasters, big and small, in caring for the public. It is not uncommon to find nurses steadfastly going to where they are needed, even if that means climbing over rooftops, riding city buses looking for homeless patients who live on the street or in abandoned cars, or hitching a ride in a city sanitation truck during snowstorms to get to a patient. Over time, nurses have demonstrated an ability to locate those in most need and render care wherever they are. The care that nurses offer may be invisible to those on the outside looking in, but that care is no less significant even if it is under the radar. Not all nurses claim to be public health nurses, but if there is a disaster, whether it is human-made or natural, all nurses are public health nurses. As such, nursing plays a vital part in the collaborative efforts required throughout the disaster management cycle.

References


Box 1: National Health Security Strategy (NHSS)

10 Objectives

- Foster informed, empowered individuals and communities
- Develop and maintain the workforce needed for national health security
- Ensure situational awareness
- Foster integrated, scalable health care delivery systems
- Ensure timely and effective communication
- Promote an effective countermeasure enterprise
- Ensure prevention or mitigation of environmental and other emerging threats to health
- Incorporate post-incident health recovery into planning and response
- Work with cross-border and global partners to enhance national, continental, and global health security
- Ensure that all systems that support national health security are based on the best available science, evaluation, and quality improvement

Box 2: Responding to the Call for Action

It's What We Do

Barbara Krajewski, DNP, FNP, RN
Orthopedic Trauma Nurse Practitioner
Member of a Federal Response Team

It is really interesting, the role of the nurse during a disaster. It depends upon the nurse, the nurse's background, and whether the nurse is working for a private institution or the Federal Government. I have worked for both, but mostly the Federal Government. The first disaster that comes to mind is Hurricane Katrina. We were a part of a federal disaster team. The role of the disaster nurse was different in the first two weeks.

These weeks we were trouble-shooting and managing patients' blood pressure, feeding them, and improving their hygiene. It was very stressful; the occurrence just happened and people had no place to go. They were displaced from their families and home with no drinking water. We set up clinics and portable hospitals and we treated people that came in; some of them stayed. We also received patients from hospitals and nursing homes who were displaced because there was no water, medications, or health care providers and the sanitation was also a problem.

Also, because that disaster was long, there was a next phase. Once the people were in safer circumstances, the next phase began: to immunize those who assisted. These were the people who were working within the open sewage and the water and mold, and those working in the homes, such as the visiting nurses, electrical workers, plumbers, any person working within the infrastructure. Nurses were responsible for almost every aspect of the patient including physical, emotional, and psychological support.

In a disaster, you offer support when you can. In the first phase it is difficult for it is more “treat and go, treat and go.” You offer support when you can. Due to the volume and the magnitude of the number of people you are caring for, it is difficult. You do not have time to deal with the emotional and psychological part. There are just too many people. You do the best you can to get the general population through. You can only provide so much with the allotted time. It is during the time when we were immunizing people during the clean up—after the initial influx—when we spent more time talking about where they were, what happened, where their family is, where they are staying, when was the last time they slept in an bed or took a shower. This was when we could spend time with patients and they began to grieve. People were still in shock.

Nurses work in a team all of the time. We are used of working with all different types of individuals who may be in the health care arena or in the private sector. An example is nurses working with the ambulance corps to transfer people out of there to a safer environment. Or working with the Department of Health to find out about infections and where they are coming from and how to treat them. We also worked along with physicians, EMS, and fire department collectively to improve patient outcomes.

I presently work in a hospital and I work in teams all the time. I work with a head nurse, social worker, and staff nurses, dietary, and respiratory staff. We work collectively for the patient. It is what we do.
Business Continuity Management: An Informal Framework for Planning

Dr. Bel G. Raggad, Co-director, Seidenberg CyberSecurity Institute
Dr. Constance A. Knapp, Co-director, Seidenberg CyberSecurity Institute, Pace University, Pleasantville, NY

Abstract

There have been several business continuity guides and national standards that have not been officially internationalized. The final version of the ISO standard for business continuity remains still unconfirmed. While we are still awaiting the ISO 22301 we propose an informal framework for managing business activity based merely on previous local standards like PAS 56 and BS 25999. This framework does not adopt the specification requirements proposed in Part II of the ISO 22301 but embraces some of the definitional delineations followed in those guides. This article however adopts some of the activities defined in the business continuity methodology described with greater detail. (Continuity Forum; Credit Research Foundation; Resilience, 2011).

Keywords: Business continuity, disaster recovery, business continuity plan, PAS 56, BS 23999, ISO 22301, Business Impact Analysis

Introduction

We can see disasters taking place all over the world causing human loss and causing businesses to disappear without the possibility of recovery (Software Engineering Institute, 2012; Computer Security Institute, 2007; Computer Security Institute, 2007; Whiteneck). While the availability of standards and regulations for security planning and auditing have been very useful in protecting our computing environments, we find ourselves helpless when it comes to the planning of business continuity and disaster recovery. Particularly, the ISO (International Organization for Standardization) 27000 family and NIST (National Institute of Science and Technology) 800 series have been very valuable in achieving our security objectives. Unfortunately, when it comes to business continuity and disaster recovery, we remain vulnerable to all sorts of natural and/or manmade catastrophes and undesired incidents (ASIS International, 2012).

At Pace University’s Summit on Resilience conference on January 11, 2012, we spent a day where every minute was a “real-world” learning minute. Speakers had seen it all and saved lives and businesses in live situations. They presented and specified real situation-driven methods very rich in knowledge and actionable information support. What can theories add to what those first-line defenders and front officers accumulated and parsed out to make what has become for them instinctual practices?

This paper will add the literature presenting valuable international standards that can be studied and recommended for organizations and for their IT and business experts to adopt in planning, developing, implementing, and evaluating their business continuity management systems.
Even though there are national business continuity standards that have been around for some time for testing and adoption, a standard approach to business continuity has been awaited for many years. We are still expecting standard ISO 22301 that will provide the needed specifications to develop business continuity and disaster recovery plans (IDG Connect). ISO 22302 is expected to be available for publication in late 2011 or early in 2012. In the meantime, we propose a comprehensive business continuity and disaster recovery planning methodology that organizations can adapt to plan and manage business continuity.

Publicly Available Specification 56 (PAS 56) was the first known process adopted in the United Kingdom in 2003, leading to a standard for business continuity planning. It consisted of a set of guidelines recommended by the information technology (IT) and business expert community as best practices for the improvement of businesses continuity management.

The Basel II Accord and the pressing United Kingdom regulations increase the pressure on the business community to produce an acceptable business continuity standard. The power of business and its flexible capabilities seem to be too distant and dispersed among suppliers, partners, and other nodes in the supply chain. This dispersion of resources can make it difficult for those resources to regroup and synchronize, thus losing the required resilience needed for business continuity.

The PAS 56 intended to 1) provide clear definitions for the processes, principles, and the terminology needed in business continuity management, 2) to introduce a generic framework for incident detection and response, and 3) to specify and document useful business continuity evaluation techniques.

While PAS 56 relied on corporate governance, management support and responsibilities, and accountability, the guidelines are meant for business and IT experts in charge of defining, developing, implementing, and maintaining the business continuity management plan.

Of course, as with any new set of guidelines, the PAS 56 had deficiencies. The British Standards Institute (BSI) needed to test and retest the guidelines for validity and completeness. Major problems with the PAS 56 related to imposing routine live tests where incidents are created and the disaster recovery and business continuity operations are evaluated. These live testing activities may be counterproductive for large companies for which great business losses may be realized. The BSI organized a national committee on risk management for which business continuity was a subcommittee.

The PAS 56 led to the BS 25999 standard for business continuity management. The BSI partnered with the Business Continuity Institute (BCI) and invited others to participate in developing the new guide for business continuity. This standard has now replaced the previous PAS 56.

The BS 25999 consists of two parts: 1) BS 25999-1: Code of Practice based heavily on the PAS 56 literature; and 2) BS 25999-2: Specification, which describes the business continuity management specifications against which certification may be sought. Following the BS 25999, the time has come to internationalize the British standard by turning it into an ISO standard of business continuity. The new name given to the BS 25999 is ISO 22301 and it is entitled “Societal Security—Preparedness and Continuity Management Systems—Requirements.” It was intended to specify the requirements for setting up and managing an effective Business Continuity Management System (BCMS). Even though this new BCM standard is currently only available as a draft and the final
version is due sometime in early 2013, it is still not available in February. Eventually, this
version of the BCM ISO standard will allow organizations to voluntarily demonstrate
compliance. This will also serve to support any subsequent BC certifications.

An ISO standard is a crucial standard. A sufficient number of organizations and
individuals participated in writing it, testing it, and validating it. Most often companies
that neglect such standards (because there is no mandate to conform to them, or
because there is no pressure from customers and/or partners) will sooner or later feel
the consequences of their negligence.

The existing draft of the ISO 22301 introduces the PDCA (plan-do-check-act) cycle in the
first section and describes the scope of the plan in the second section. Then, and as in
most ISO standards, the third section includes the normative reference before defining
in the fourth section the terms and definitions used. The fifth section describes an
understanding of the organization, its needs, and the scope of the management system
relative to the business. The next sections, from six to eleven respectively, present the
leadership, planning, support, operation of the BCMS, performance evaluation, and
continuous improvement.

Live It Day by Day?

We cannot help but notice that in disasters in the last decade, businesses have been
lost, often without the possibility to recover them. While the availability of standards
and regulations for security planning and auditing have been very useful in protecting
our computing environments, we find ourselves helpless when it comes to the planning
of business continuity and disaster recovery. In particular, the ISO 27000 family
and NIST 800 series have been very valuable in achieving our security objectives.
Unfortunately, when it comes to business continuity and disaster recovery, we remain
very vulnerable to natural and/or manmade catastrophes and undesired incidents.

No organization nowadays is immune from business disruptions. These disruptions
may be caused by internet-based attacks, natural disasters, man-made incidents, or
technological failures. Financial losses and social consequences may be unbearable.
Only those organizations that have implemented adequate safeguards to deter the
agents producing the business disruptions, detect them, prevent them, and correct
their effects have a chance to survive those business disruptions (CNET News, 2004;
Software Engineering Institute, 2012; Continuity Forum; Computer Security Institute,
2007; Resilience, 2011).

A business can be disrupted in many different ways. Depending on the criticality of the
business components that have been hit, the losses can be of any size. While some
business components fully recover, others may be only partially recovered or may be
lost for good. Also, while some corrective and recovery activities can be easy, quick,
and inexpensive, other such activities can be very difficult, slow, and very costly.

It is difficult to accurately determine business losses following a business disruption. In
order to estimate the effects of disruption events on business assets, you have to know
a lot more than the specifications of the affected business assets. Business losses are
not only financial, but also social, technical, operational, ethical and legal. You need to
be very familiar with the organization’s strategic plan, business mission and vision, and
strategic objectives and values.

The literature provides many taxonomies (Continuity Forum; Resilience, 2011) that
organize the disruptive agents into classes in terms of a variety of discrimination
parameters. In this article, we present a simple taxonomy of business disruptive agents
that divides them into four classes: (1) Natural, (2) Technological, (3) Man-made, and (4) Biological.

There are many ways to counter business disruptions (Continuity Forum; Resilience, 2011) including business continuity, disaster recovery, emergency plans, contingency plans, and so on. However, we will only examine business continuity and disaster recovery plans.

**Business Continuity**

Business continuity is the ability of an organization to respond to disaster or business disruption through the timely detection of the disruptive event, the accurate measurement of risks and business losses, and the efficient resumption of business operations. The National Fire Protection Association (NFPA), defined business continuity as follows (National Fire Protection Association, 2007)

> Business Continuity is an ongoing process supported by senior management and funded to ensure that the necessary steps are taken to identify the impact of potential losses, maintain viable recovery strategies, recovery plans, and continuity of services.

This definition requires that management funds and supports the business continuity effort. Business continuity is a continuous process that keeps track of all possible losses and their impacts on the organization (Software Engineering Institute, 2007). It is also responsible for maintaining viable safeguards capable of an effective and quick recovery and continuity of business services.

**Disaster Recovery**

In addition to business continuity, other activities are concerned with an organization’s responsive capabilities to business disruptions. Disaster recovery is an example that is related to business continuity.

Disaster recovery is the activity of resuming computing operations after a disaster—like floods, severe storms, or geologic incidents—takes place. Restoring the computing environment is often achieved through the duplication of computing operations. Disaster recovery is also concerned with routine off-site backup, as well as writing and implementing procedures for activating vital information systems in a safer computing environment.

That is, any organization of any size will obviously need a proactive business continuity plan to prevent any short business disruptions and a feasible reactive disaster recovery plan to be able to recover from short or long business discontinuities resulting from inevitable disasters (AT&T, 2007; National Fire Protection Association, 2007).

**Responding to Business Disruptions**

Business disruptions can happen anytime, anywhere in the organization, and without prior notice. The organization, however, should feasibly adopt all available safeguards and defense strategies to minimize the effects of any business disruptions on its business assets. Those safeguards are often divided into four classes (Raggad, 2010): 1. Deterring safeguards, 2. Detective safeguards, 3. Preventive safeguards, and 4. Corrective safeguards.

The adoption of any deterrence techniques should aim at communicating to disruptive agents that the consequences of committing crimes against the organization surpass
the benefits they will obtain from these crimes. The organization should publish previous cases where attackers were caught and punished. Deterrence theory is based on the assumption that when you punish a person for the benefit of society, you will deter others from doing the same (Whiteneck).

Software and hardware tools may be useful in deterring potential attackers from conducting harmful attacks against the organization. Installing a firewall at network entry points may scare away those attackers who fear they will be detected and discovered by the firewall.

The earlier you detect a disruptive event, the easier it will be to respond to the disruption and the easier it will be to recover from consequences caused by the disruption.

Prevention is the most justifiable activity for an organization to protect its computing environment. It can save the organization all the adversity and losses in managing detection and correction activities. Most often, preventive safeguards do not cost the organization more than a fraction of the recovery costs in case a disrupting event takes place.

Preventive controls have to be applied in many areas where risk is not acceptable. They may be adopted in human resource management where hiring procedures have to ensure that only safe and competent personnel are hired. Candidates for any position in the organization have to go through background checks, drug screening, etc., as stated in the organization's security policy. The organization's security policy also contains regulations on all types of physical security, as for fire safety, protection from water damage, or other aspects of physical security.

Unless we have all the information needed about the current attack, the business components that have been attacked, and the damage caused to them, we cannot initiate any corrective actions. As soon as we have this information, the following activities can be started: 1) Rank affected business components in terms of their criticality; 2) Rank affected business components in terms of damage extent; 3) Identify alternate corrective actions; 4) Select the most feasible alternative corrective safeguard; 5) Apply the selected corrective actions to the selected business components.

While the above steps should be undertaken whenever a business disruption takes place, there are several business disruptions that have to be managed through more comprehensive corrective approaches given the extensive damage and losses they can cause to the company. We only examine one comprehensive corrective safeguard: business continuity plan (BCP). A disaster recovery plan (DRP) is simply a part of the business continuity plan that is concerned with the organization's computing environment.

What Is a Business Continuity Plan?

Sun Microsystems (IDG Connect) defines business continuity as follows:

“The process of creating, testing, and maintaining an organization-wide plan to recover from any form of disaster is called Business Continuity Planning (BCP). Every BCP strategy includes three fundamental components: risk assessment, contingency planning, and the actual disaster recovery process. BCP should encompass every type of business interruption—from the slightest two-second power outage or spike up to the worst possible natural disaster or terrorist attack.”

A Business Continuity Plan (BCP) is a sequence of steps approved by upper management that presents what the organization should do to restore business operations when a
disruptive event takes place. This plan concerns the entire organization, including any
disaster recovery departments or teams that have been created by the IT unit. The
BCP aims at providing the feasible restoration of all business operations, including
information technology, in a prompt manner. The BCP will contain, for each functional
unit and its departments, a description of all the requirements that are necessary to
continuing their operations.

Let us examine the BCP definition proposed by The Business Continuity Institute
(Business Continuity Institute, 2010):

“BCP is a holistic management process that identifies potential impacts that
threaten an organization and provides a framework for building resilience
with the capacity for an effective response that safeguards the interests of key
stakeholders, reputation, brand, and value creating activities.”

This definition introduces several important requirements for the business continuity
process. It emphasizes that the main objective for business continuity is to safeguard
the interests of stakeholders, reputation, brand, and value-creating activities. The
business continuity process establishes a comprehensive framework for building
resilience through scanning the environment for potential business disruption
threats, measuring and managing risks, and devising an effective business continuity
response system.

What Is a Disaster Recovery Plan?

A disaster recovery plan is the sequence of steps approved by management to recover
from a disruptive incident so that business may be restored to an acceptable level of
operation.

A disruptive incident may be as small as a faulty switch, or as large as the work of
terrorism. These undesired incidents may be the work of nature, as in fires, earthquakes,
floods, storms, and so on; the work of man, such as man-made attacks, a workers’
strike, malicious programs, viruses, and so on; or the work of technology, such as
network congestion, malfunctioning hardware, or faulty telecommunication devices.

Why Do We Need a Disaster Recovery Plan?

Unfortunately, there is probably nothing easier than justifying the need of a disaster
recovery. Terrorism is on the rise. Internet attacks are on the rise. Natural threats and
unpredictable weather changes are on the rise. Our dependency on technology is on
the rise. Our exposure to unsafe global computing, as well as open connections to the
Internet and, consequently, to the rest of the world, are on the rise (Raggad, 2010).

We may need to fight on multiple fronts in order to protect the organization. We need
to fight terrorism every single day. Even though the likelihood of this threat seems to
be low, its high impact will make it a high priority for the organization. It is better to
be safe than sorry. Readiness of the organization to respond to any type of threat is
an important rule of thumb, despite any risk and feasibility equations that may say
otherwise.

Figure 1 illustrates the effects of natural, man-made, technological, and biological
threats on an organization’s computing environment. The disaster recovery is
in fact IT recovery as business continuity is restored by restoring the computing
environment. The restored computing environment may not be good enough to
resume the business configuration that was in place when the disaster occurred.
The latest business configuration that can be reactivated using the restored disaster recovery plan is acceptable.

*Figure 1: A disaster recovery plan*

**Coexistence of BCP and DRP**

In real life, most companies that use business continuity plans also use disaster recovery plans. Nevertheless, there is often confusion in the literature in distinguishing between what a business continuity plan is and what a disaster recovery plan is. Many people still use the terms interchangeably. People also refer to both as “contingency plans.”

The business continuity plan is actually the result of a comprehensive business process that includes the disaster recovery plan, meant for the IT functional unit. Figure 2 shows that the IT unit is in charge of the computing environment for the entire company and that the disaster recovery program documented in the disaster recovery plan is concerned only with the computing environment and not the business system of the organization. The disaster recovery plan is a very important component of the business continuity system.

*Figure 2: Coexisting business continuity and disaster recovery plans*
Business Continuity Design

The business continuity scheme is only a framework used to integrate the design of all business components required to devise a business continuity program. This step is needed to define the business continuity management requirements that will describe the business continuity activities that have to be completed when a business disruption takes place. These activities should be described in sufficient details in the business continuity plan. The following activities are an example of such activities: 1) Incident analysis requirements; 2) Requirements for isolating incidents; 3) Disrupted business assessment requirements; 4) Requirements for protecting facilities; 5) Requirements for withdrawal to safety; 6) Requirements for defining relocations; and 7) Business resumption requirements.

Incident analysis is the first step, even though it is the one that may take longer than any other step of the business continuity plan. It is not easy to know right away what really happened unless it is an attack for which we know the signature. Most often, if this is an incident that we recognize then it is very likely that a response will be automatically planned and corrective actions will be straightforward. If, however, it is not an incident that we recognize, then we need to investigate and collect more information about the incident. This should take as long as is needed.

The incident isolation step is also among the initial business continuity plan activities that are started as soon as the disruptive incident is detected. Isolating the incident is consequential in delimiting the affected resources and areas. If the incident cannot be isolated, then it will be very difficult to protect the organization and its infrastructure. Before we initiate any corrective actions, we need to know the extent of the damage. We have to identify the affected resources and areas, assess their operations, and provide enough information to management to determine the corrective actions that may mitigate business risks, determine whether or not and how resource withdrawal to safety may be planned, and determine whether or not and how relocations are planned.

Of course, the business assessment step should not wait until the incident analysis step is completed, as this may never happen. Even though any information obtained from the incident analysis step will be very helpful in studying the business impact, business assessment may, in fact, be conducted fully independently of the incident analysis step. While the other business continuity plan activities, like disrupted business assessment and incident analysis, continue, corrective actions are performed to save the infrastructure of the organization. Telecommunication networks, buildings, and many other resources have to be protected and restored when feasible. Minimal configurations of business functions may start as soon as the necessary components needed for those business functions are restored. The restoration process may be sequential, as business will be recovered sequentially starting from smaller configurations to larger configurations. The business continuity process may bring back the organization to the initial configuration or even to a better one.

Once we have obtained enough information from the incident analysis step, disrupted business assessment step, infrastructure protection step, and incident isolation step, we can then start the step concerned with withdrawal to safety. This step involves identifying the most valuable resources, including people, so that we can evacuate them rapidly. Evacuation maps, for people or other resources, may be needed. This will facilitate the withdrawal of information resources to safer areas and the evacuation of employees (Businessballs, 2012).
Partial or full relocation of business is sometimes necessary. Many businesses in Manhattan relocated, at least temporarily, when the September 11 disaster occurred. Most often, information about potential new locations of business is available, but the decision to relocate has to be made. The following decisions have to be made: 1) Full or partial relocation; 2) Where to relocate; 3) In case of partial relocation, what parts of business are to be relocated; 4) Timing of relocations; 5) What are the new risks, given similar disruptive events; etc.

At this point of the business continuity design, we have defined the business disruption incident and the steps to isolate it. We also have defined the steps to follow to assess current business after the business disruption and the steps to protect the rest of the affected business functions and the other business functions that were not disrupted. We also have defined how to start business withdrawal to safety if needed and how to relocate if necessary.

That is, we have defined all the business continuity requirements that have to be satisfied before starting the resumption of business operations. The step of business continuity resumption is the core step of the business continuity program.

**Business Continuity Program**

This phase of the business continuity management process takes the business continuity requirements defined in the business continuity requirements specified earlier and translates them into structured sequences of deliverable tasks that will be part of the business continuity plan. Most often, a sound simulation of the business continuity management plan has to be conducted and its data analyzed.

BCP analysts need to evaluate assets in relation to potential disruptions. We need to have a clear layout showing the distribution and arrangement of organization assets and users and personnel. The use of simulation can provide a great means of studying possible scenarios for potential disruptive events and alternative ways to prevent them and to take corrective and recovery actions if a disruptive incident takes place. Nothing can replace a simulation to obtain a good feel of the situation and to gain a good understanding of the actions needed to restore critical business functions.

Most often, simulations may be configured to capture all aspects of the working system while identifying those business processes that contribute the highest to generating business value for the organization. The simulation will provide great information support to the BCP analyst to effectively model the disruptions of business operations, effects of disruptions on business operations and their ability to generate business value, and possible corrective and recovery actions. The model is intended to generate decision support information to support various activities of a business continuity plan: Incident analysis, disrupted business assessment, protecting the infrastructure, isolating incidents, withdrawal to safety, and defining relocations.

**Business Continuity Plan**

Up to this point of the business continuity design phase, we have assembled all the business continuity tasks and simulated those using diversified scenarios. Using the findings produced by the simulation completed in the previous step, we are now in a position to revise the business continuity program. After effecting the necessary revisions, we are able to produce the final design for the business continuity program. At this point of the business continuity design phase, we have, on hand, the
business continuity program we designed earlier. This program should be presented to the business continuity staff and tested by them. This testing activity will identify operational faults, which will be re-examined by the business continuity team and corrected. Any inconsistencies or violations of the business continuity policy, security policy, and other organizational regulations and policies should be resolved.

**Documentation of Business Continuity**

The business continuity program is now tested and validated. It is then documented and used to generate the business continuity plan. The final business continuity plan is then submitted to management for approval.

The Institute of Professional Business Continuity Managers, also known as the Business Continuity Institute (BCI), defines a business continuity plan as follows (Business Continuity Institute):

> “A clearly defined and documented plan for use at the time of a Business Continuity Emergency, Event, Incident and/or Crisis (E/I/C). Typically a plan will cover all the key personnel, resources, services and actions required to manage the business continuity management process.”

At this point, we achieved the objective of producing the intended business continuity plan which is a document presenting, in easy terms, the plan to be followed to resume business if an incident occurs.

However, in order to achieve full competency, effective training methods have to be adopted. Diversified training tools have to be used, including videos, lectures, case studies and workshops, and discussion seminars. Training without test measures may not be effective, as we cannot know for sure that the training objectives we had in mind have been achieved. Diversified testing techniques have to be used, including case studies and workshops.

Moreover, exercising business continuity with live scenarios is the best way to develop an effective response. Diversified scenarios for business disruptions have to be selected. The parts of the business continuity plan that concern the selected scenarios have to be acted out as if we were in a real business disruption situation.

Throughout the exercises and at the end of every exercise, all deficiencies of any type have to be documented. The accumulated reports have to be studied and necessary corrections have to be recommended.

All findings obtained from earlier testing and exercising activities are used as inputs to the business continuity plan review step. Additionally, many other types of reviews may be performed to make sure the business continuity plan is effective.

It is also recommended that independent internal or external auditors may be called in to audit or review the business continuity plan. The auditors and reviewers submit their reports to the business continuity team. While minor modifications, additions, or deletions may be effected immediately, all major revisions have to be approved by upper management.

**Maintenance of the Business Continuity Plan**

The maintenance of the business continuity plan aims at the continual improvement of the business continuity plan. While the business continuity team may employ any activities or techniques to enhance the effectiveness of the business continuity plan any time they deem necessary, there are circumstances when minor or major revisions
are mandatory. Such circumstances include any changes in the business system configuration when new business functions, new business processes, or new business services are added, or when old business components are dropped or reconfigured, or when there are changes in the infrastructure, including new telecommunication networks or buildings, changes in locations, and so on.

Most often, the following steps are included in any maintenance phase of the business continuity plan project: 1) Periodic training of relevant staff; 2) Periodic exercising of the business continuity plan; 3) Periodic review of the business continuity plan; and 3) Periodic audit of the business continuity plan.

Finally, in the business continuity plan project, there is always the business continuity execution phase. While one certainly hopes that this phase will never happen in real life, however, no organization is immune from it.

The business continuity plan should define all conditions, in great detail, that specify the type of business disruption and the part of the business continuity plan that applies. The business continuity plan will guide the business continuity team in starting the business resumption process. Most often, this business resumption process goes through the steps of analyzing the business disruption incident, isolating the incident, assessing the current business situation, protecting facilities, withdrawing to safer locations, relocating, and resuming business operations.

Conclusion

This paper adopted several business continuity guides and national standards that have not been officially internationalized. While the final version of the ISO standard for business continuity remains still unconfirmed, we propose an informal framework for managing business activities based on previous local standards like PAS 56 and BS 25999. This framework does not adopt the specification requirements proposed in Part II of the ISO 25999 but embraces some of the definitional delineations followed in those guides. This framework is very useful for organizations to plan their resilience capabilities that can be translated into an effective business continuity plan. This plan can in turn be easily validated to conform to the new ISO 22301 as soon as it becomes official.

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The Impact of 9/11 on Education

“In the face of change and crisis, the resource we need most is our resilience.” Ellie Allison: The Resilient Leader

Arthur T. Maloney, EdD
School of Education, New York, NY

Like all other American institutions, our K-12 schools and Schools of Education were profoundly influenced by the unfathomable events surrounding the terrorist attack on New York City on September 11, 2001.

Unquestionably, the event shattered our national sense of security, our perceptions of the world beyond our shores, and our views concerning cultures and religious beliefs which heretofore we had chosen for the most part to ignore. The immediate effects of witnessing the horrors of September 11 on our own soil and subsequent social, economic, and political turmoil remain constant and central themes in every school room across the country 10 years later.

In many respects, America’s teachers in 2001—confused, disoriented, and unaccustomed to dealing with such tragedies—were nonetheless first responders in working with the children in their care to allay fears, provide perspective and prepare students for a new world view which would change things forever. As the smoke cleared from the initial attack, the responsibility for making sense of the tragedy and reacting appropriately to the new challenges became a sudden front burner issue for America’s schools and its teacher preparation institutions. How do we respond intelligently to the inevitable questions raised: Why do such things occur? Who is responsible? How will we respond going forward? For schools, such questions go to the heart of our mission as educators of the future generation, as contributors to creating the next generation of thoughtful, just and discerning members of a democratic society. As Allison and Reeves (2011) point out: “…resilience is an inside job that begins by choosing to be resilient…Resilience requires leaders to take care of business-and themselves- while taking action in new realities.” For educators, September 11, 2001, was both an end and an awakening as suggested in the words of T.S. Elliot, “We shall not cease from exploration. And the end of all our exploring will be to arrive where we started and know the place for the first time.” (Page and Sosniak, 2002)

How do we see through the fog of war and retribution to provide our students with the skills of perspective and critical thinking which enable us to confront our own biases? How can we honor with sensitivity the legendary courage and sacrifice of so many while also examining critically the debate surrounding our reactions to public policy nationally and internationally? These are the challenges that continue to confront educational professionals and schools of education going forward.

What ultimately is a crucial role for educators and a major commitment to our students in the post 9/11 era is to strongly consider the words of Professor John Willinsky from the University of British Columbia. While referring to 9/11 and its aftermath he noted, “…What is important about education is that its spirit of openness survives any attack on the human qualities of trust and the drive to know, both of which education offers.” (Willinsky, 2002)
Teachers and schools of Education must also be concerned by what Stanford University’s William Damon calls: “…the unfortunate lack of understanding by today’s schoolchildren about the world beyond their own intimate circles of friends and family. Their ignorance most notably includes an almost complete lack of awareness about how rare their most prized possession, freedom, is in large parts of the world. Nor do they have much appreciation of what freedom means for a civic and political life that deals with matters more serious than recreational choices. Indeed, young people in our country know practically nothing about national or global politics, and they care even less. By the end of the twentieth century, social scientists and educators were beginning to express concern about the troublesome know-nothingism that had spread among the ranks of American youth.” (Damon, 2011)

9/11 Impact on K-12 Schools and the Implications for Schools of Education

“The harder the conflict, the more glorious the triumph.”
Thomas Paine, The American Crisis, No. 5, March 21, 1778

Beyond the esoteric concerns, 9/11 continues to have discernible and lasting implications for practical budgetary, supervisory, school community, and curricular evolutions which schools of education are intimately connected to by necessity in their preparation of future teachers and administrators. Even before 9/11, the tragic circumstances in Columbine (Colorado) High School changed the mind-set and dynamics of school administration in a most profound way. Security, preparedness, and resultant procedures took on new urgency as communities around the country clamored for more stringent security protocols. 9/11 awakened us from our intramural perspectives to consider the global consequences of our lackadaisical attitudes toward world affairs and our mistaken belief that threats to our security were limited to internal matters. Just as isolated and bullied individual students in local communities attempt to even scores for past slights in a flourish of angry and violent outbursts, we now were forced to confront powerful international conspiracies of angry terrorists capable of mass murder on a level we have never contemplated before. For educators the lessons of 9/11 were clearly that local networks needed strengthening, regional networks needed greater coordination and funding and education needed to address the failure to anticipate and respond to the messages of alienation and lessons of history we avoided locally and from around the world.

The Pace University School of Education, housed in the former shadow of Ground Zero, is particularly sensitive to this new era of high security and additional curricular demands in the preparation of teachers. For schools in the first decade of the 21st century, the impact of 9/11 had a lasting effect on what teachers have come to know as “Full Plate Syndrome” (Kralovec, 2003), the notion that in addition to the already significant and increasing responsibilities of the modern teacher, 9/11 outcomes added a host of new issues and concerns to an already overwhelming set of requirements. This new set of policies and procedures came at a particularly difficult and demanding time for teachers, administrators, and schools of education, as accountability standards imposed by No Child Left Behind and diminishing resources were further impacted by overall reductions in national, state, and local budgets that shifted priorities to expensive security concerns. Schools were required to reallocate budgets to tighten security with more administrative staff, the installation of expensive monitoring devices, identification credentials and restricted access to once open environments. Drills once limited to concerns about fire were now extended to include lockdowns and lockouts from intruders, secret codes, and in the case of Westchester County schools, mass evacuation drills to account for an
attack or damage to the nuclear power plant located at Indian Point.

To bring this into perspective, new administrative candidates in schools of education are now required, in their strategic plans, to allocate resources away from instruction, supervision, remedial assistance, collaboration efforts and professional development. Specifically, for example, a superintendent or principal must often choose between an unequivocal commitment to student security or the reduction in class size for elementary school students. A new camera monitoring system will often result in the need to layoff additional instructional and support staff. Bomb scares from the 1970s have returned with new offshoots focusing on unattended packages and suspicious envelopes. Teachers and administrators are trained to do more with less and in a more highly structured and intense environment than ever before. The full plate is overflowing and choices for school leaders continue to move in directions that inhibit and undermine needed instructional programs.

Our national expectations for public schools to keep the arguable implications of the 9/11 heritage alive are foundering badly amid the competing forces which require cutbacks in school budgets, reallocation of resources to non-instructional mandates, and a focus on the tested subjects of math and reading only (at the expense of social studies, science, and arts), all in a climate of unprecedented attacks on public schools and their teachers.

While the future of public education is an important subject for national debate and evaluation, current circumstances do not provide fertile ground for rich and intelligent curricular efforts to have students across the country explore the important questions raised by the tragedy of 9/11. Most teachers, administrators, and university professors will simply ask where it will fit in a way that offers a viable opportunity to achieve the lofty goals discussed previously.

The first decade of the new century undoubtedly has also taken us to a more divisive, insular and hypersensitive condition as the tone of the country appears to be more suspicious, xenophobic, and less tolerant. Fiscal realities seemingly have increased frustrations in communities and exacerbated tensions toward newly arrived immigrants, particularly in Muslim communities. Prejudice, bias attacks, and the recent focus on bullying incidents have become regular parts of the school lexicon with resultant implications for schools of education. New teachers must be trained in today’s realities for curriculum, instruction, inclusion, bullying and security procedures. The newest categories of inclusion, bullying and security procedures require the attention of teacher preparation institutions to the exclusion of other topics which are focused on instruction, curriculum and assessment concerns. None of these categories are illogical or unacceptable, yet returning to the Full Plate concept, they stretch already limited resources of time and money on a profession and institutions which are already under unrelenting attack from the media, government and a host of powerful corporate interests.

The profound shock produced a decade ago by the 9/11 attacks has receded somewhat from headlines and our attention, and we find ourselves arriving, again, at a crossroads in making sense of September 11 and how we will teach it to a new generation of students who predictably are less concerned and desensitized to the sacrifices made by so many Americans over the past ten years. As Bryan Koon shared during the Summit on Resilience Conference, our collective feelings of vulnerability dissipate with each year we are removed from the disaster, making contingency planning progressively more difficult. (Koon, 2012).
Politically, from the right and the left there is considerable pressure to teach about 9/11 and encourage “patriotism,” “citizenship,” and “global awareness”—all terms which are heavily value-laden and with meanings quite different to diverse communities and their constituencies. Schools practically must be aware of and sensitive to community sentiments in evaluating how or if we will teach the lessons of 9/11. How will schools frame the liberty v. security issue? How will we present extremist ideology as distinct from the Muslim religion? Should we encourage students to see things from the Islamic citizens’ point of view? These are questions that have also brought to light our de-emphasis on teaching social studies. Despite the hundreds of articles and commentaries with political, social, and economic implications that dominate the media, Education Week reports, “Fewer than half the states explicitly identify the 9/11 attacks in their high standards for social studies”; the relatively few schools that do, often spend just a few minutes on it (Sirota, 2011).

In addition to the practical implications and limitations for teachers and school leaders there is growing concern that schools are shying away from the topic because increasingly it is becoming part of the divisive national dialogue on what story should be told and from what perspective. As Sirota (2011) contends in Why Schools Need to Teach 9/11, pursuing the worthy goal of raising complex questions and broadening the context for understanding the 9/11 attacks would require kids to explore inconvenient historical truths about America's less than admirable history in the Islamic World.

In our enthusiasm for NCLB and its narrow and arguable goals we have lost our focus on the primary mission of public schools. Perhaps Diane Ravitch says it best that if we want 9/11 and its lessons to be relevant once again we need to return to the more traditional role of public education. In speaking of what we need for our students she states: Certainly we want them to be able to read and write and be numerate. But that is not enough. We want to prepare them for a useful life. We want them to be able to think for themselves when they are out in the world on their own. We want them to have good character and to make sound decisions about their life, their work, and their health. We want them to face life's joys and travails with courage and humor. We hope that they will be kind and compassionate in their dealings with others. We want them to have a sense of justice and fairness. We want them to understand our nation and our world and the challenges we face. We want them to be active, responsible citizens, prepared to think issues through carefully, to listen to differing views, and to reach decisions rationally. We want them to learn science and mathematics so they understand the problems of modern life and participate in finding solutions. We want them to enjoy the rich artistic and cultural heritage of our society and other societies (Ravitch, 2010). Under current curricular limitations and restricting mandates, Ravitch warns that we cannot hope to accomplish these goals or prepare students for responsible citizenship in a post-9/11 society without knowledgeable individuals who are critical thinkers and thoughtful debaters of key events in our history (Ravitch, 2010).

For Pace University and all schools of education, our task and duty is to keep the discussion of 9/11 alive by embracing the new technologies of learning and preparing our future teachers to build upon the unique and multifaceted opportunities that are presented every day to our students. We need to encourage and support our students in embracing this challenge by fostering the techniques of having school children construct their own questions and achieve deeper understandings of key events in our history. We need to help them in the methods of constructing meaning, questioning the status quo and making connections to the past.
Moran and Socol (2011), in their article entitled, *Why September 11, 2001 Must be in Our Classrooms*, support these ideas in suggesting that: Our students cannot continue to learn history simply by recalling dates and names of leaders. That form of sanitized school history has too often produced a public unable to critique politically motivated revisions of history. It is also not enough to present “two sides to a story.”

Rather, our students must learn how to look deeply and critically into multidimensional stories that are the building blocks of our shared understanding of history. Learners who realize that history occurs chronologically but is best understood conceptually become historians for a lifetime. They are intrigued by the connections and relationships of historic events and realize there’s more to history than dates, places, and names in a book or on a test. They seek history’s stories and pass those stories on to the next generation. They learn that history emerges from the people who populate these stories and is brought forward by those who document and tell those stories. They ask questions. We must engage our young people in the construction of history. In this century, we are all historians, researching, comprehending, assembling, reporting, and storytelling. Have we, as Page and Sosniack (2002) suggest, “moved on” and “put September 11 behind us”, or have we as a nation again exhibited the speedy amnesia for which it is justly known? As some have mused, maybe September 11 has now had its “15 minutes of fame” and we are loathe to grapple effectively with its sobering and controversial lessons? Keeping the spirit and lessons of the 9/11 tragedy as a key turning point in our history reminds us of our strengths and weaknesses as a society. It provides the unique opportunity to celebrate our heroes and explore the contributions of our public servants who, for an all too short moment in our experience, captured the attention, admiration, and support of the entire nation. Every day, public servants long taken for granted became visible as we allowed ourselves to appreciate the dignity, unselfishness and critical roles they played. Teaching about 9/11 allows us to periodically rekindle those feelings and celebrate the best characteristics of a democratic society. As Blacker (2002) so eloquently concludes:

...the deeds of September 11th’s public servants clearly reveal something about the nature of public service, something of which we are all-too rarely aware. Beneath the mountains of rules and regulations, the paperwork, the bureaucracy, the incessant managerial “reform” schemes, the budgetary wrangling, even the political controversies, there persists a moral nobility inherent in public service—in those “job descriptions” and, even more, in the spirit and traditions behind those jobs.

But September 11, I think, alters much of this dynamic. Almost overnight it helps to correct this lack of vision, this myopia that causes us to miss much of what is so close at hand. September 11 also heightens the urgency with which we need to understand with greater depth and clarity those I’ve been calling the people in our neighborhood that class of public servants, including teachers, lionized in children’s books and then afterwards largely ignored in democratic theory. This is a strange and regrettable amnesia, for these full-time public servants are indispensable to any realizable contemporary democracy.

**If Disaster Strikes, Are the Public Schools Ready to Work Together to Rebuild and Recover?**

“...The readiness is all.” (*Hamlet*, VII, 234-237)

Without question, schools are uniquely prepared to respond in a decisive and coordinated fashion to any possible disaster from natural or man-made causes. One
has only to examine the essential role they have played in our recent history to see the unique and ubiquitous role of public schools as centers for community support, shelter and communication. The vast majority of the education establishment has come to heed former Secretary Ridge's warning that the community will never forgive arrogance, complacency or a failure to plan effectively for contingencies as it involves the safety of children (Ridge, 2012).

Ridge went on to emphasize that as a result of 9/11 and the inevitability of another attack, leaders of all institutions, public and private, need to expand their relationships and definitions of community and forge the stepping stones to unity, inherent redundancy and resilience in our response to potential threats. During the past several decades, schools have assumed new and increasingly complex roles as community centers, clinics, and reliable shelters in times of natural or man-made disasters.

Outside the police and military, no institution is more organized, practiced, and prepared to address the unexpected. Educational leaders and teachers understand their expanding roles as community leaders and rehearse at regular intervals, responding to myriad potential threats to public safety. Increasingly, we call upon our education professionals to train, practice and anticipate the question of what can happen and as James Featherstone noted, to prepare for the unexpected with plans that are “pre-, trans- and post-event” (Featherstone, 2012). Nationally recognized school administrative standards now demand that education leaders “develop plans of action for focusing on effective organization and management of fiscal, human, and material resources” (ELCC Standard, 3.3).

Schools of education are focused on the preparation of professionals who understand and appreciate the value of extended community relationships and foster extensive networks of community partnerships. David Kaufman (2012) of Homeland Security emphasized the further development of information networks that link local residents with the school and its services in times of need. Resilience and resourcefulness are key components of effective educators and schools, and their professional employees are trained and disposed to community service in good times and bad.

The notion of community engagement and support provides yet another important reason to keep the lessons and experiences of September 11, alive as key components of our national curricular priorities in universities and schools for many years to come. Tom Friedman (2005) reminds us that the ultimate resilience resides in the stimulation of a positive imagination to minimize alienation and celebrate interdependence rather than self-sufficiency. Openness, opportunity, and hope rather than limits, suspicion and grievance. While preparedness and security have taken on new and compelling significance, educators must never lose sight of the climate that created the vibrancy of our democratic society.

In 2012, the challenge for educators is to maintain a keen edge of vigilance amid increasingly routine procedures to ensure safety and security. In celebrating and enhancing our resilience as a society, we must point the way toward preventing a return to lethargy as the pain and shock of 9/11 recedes in our memories. And finally, our leaders must continue to echo the sentiments of speaker after speaker at the Summit on Resilience that dedication to building networks of support and security are fundamental to our freedom.

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