Policy Forum Transcript

A Resilience Metric: Measuring Preparedness before Disaster Strikes

On March 23, 2009, the Reform Institute hosted a homeland security policy forum, entitled "A Resilience Metric: Measuring Preparedness before Disaster Strikes."

The participants were **Robert W. Kelly**, Senior Advisor, Homeland and National Security Center of the Reform Institute, Managing Partner, CenTauri Solutions, LLC – *Moderator*; **Marie Royce,** Managing Director, Global Strategic Initiatives, Global Government & Public Affairs, Alcatel-Lucent; **Jeff Gaynor,** Founder, American Resilience Consulting, LLC; former Director, Critical Infrastructure Task Force, Homeland Security Advisory Council; **Liz DiGregorio,** former Director, Office of Community Preparedness, U.S. Department of Homeland Security; **Sen. Michael Balboni,** Principal, Navigators Global; former New York State Senator and Deputy Secretary for Public Safety.

A transcript of the policy forum follows.

***

Robert (Bob) W. Kelly (Introduction): Good morning everybody and welcome to The Reform Institute's Homeland Security Policy Forum. My name is Bob Kelly, I wear two hats, I'm the managing partner at Centauri Solutions which is a small consulting firm in Alexandria, Virginia and I also serve as the Senior Advisor at the Reform Institute's Center for Homeland and National Security.

I've been doing that for about a year and a half now and it's been a great experience working with the fine professionals at the Reform Institute. In fact it was about a year ago that we kicked off the work that we have been doing, promoting this notion of resilience. We had a day and a half policy forum up in New York City that we held at the beautiful New York Yacht Club that served as the basis for much of the work that we've done over the course of the past year.

For those of you who may not be familiar with the Reform Institute, the Reform Institute is a non-partisan think tank, headquarter in Old Town Alexandria and it's been actively involved in examining many of the most important issues relating to the securing of our homeland and really I think it's been one of the most forceful voices promoting this concept of building resilience across the broad spectrum of our critical infrastructure, our institutions and American society.

Resilience we believe represents the right approach for addressing challenges of the 21st century and although since 9/11, over the course of the past 7 years, a lot of progress has been made, our nation is still very vulnerable to external threats and there is a harsh reality that we really need to come to grips with. Disruptive events are inevitable, no matter how hard we try; disruptive events are going to occur. Whether the source of that disruptive event is a terrorist attack, a natural disaster, an industrial accident, or a labor stoppage all of these events have the tendency, have the potential, to wreak havoc on our nation given the fact that we have this highly networked infrastructure.

With this highly networked infrastructure and this equally vulnerable global supply chain a disruptive event could really have some catastrophic impacts on both our society and on what has become an increasingly fragile economy.

Most of you folks in the room know that the term resilience is being used more and more frequently in Washington these days, and we welcome the increased attention that has been paid to this practical way of addressing an urgent situation. But it is important that actions are matched with words and our nation's leaders follow through with policies that ensure that our nation is prepared to recover from disaster as quickly as possible.

Platitudes are easy and buzz words come and go, but preparing for the inevitable manmade and natural disasters is too important to be papered over with just these catchy slogans that you, that we, seem to find ourselves using so often, particularly in this town.

Now the good news is that resilience is a non-partisan concept and has broad appeal on both sides of the aisle, thank God, which is you know something that is a hard to do these days. This

is certainly one thing that it has going for it and it's a little easier to effectively engage the citizenry toward enhancing America's ability to confront the challenges that it faces and emerge as a stronger nation.

Fortunately most of our leaders currently appear to be ready to take on these challenges. But questions remain how we successfully transition to a more resilient society, how do we as a nation identify our level of resilience? What means do we use as a company or a as part of the critical infrastructure to determine if we are prepared? Can a government assist its citizens in becoming more resilient if it does not have a matrix to measure preparedness? And finally what good is resilience if it becomes another word for infrastructure protection? These are just some of the topics that we hope we have a chance to address today and I look forward to hear from our outstanding panelists on these important issues.

I'd like to introduce our panelists today, first off to my right, many of you know Marie Royce she's the Managing Director Global Strategic Initiatives, Global Government & Public Affairs with Alcatel-Lucent. To her left Mr. Jeff Gaynor, founder of American Resilience Consulting, LLC, former Director of Critical Infrastructure Task Force for the Homeland Security Advisory Council. And to my immediate left is someone that I've known for over 20 years, Liz DiGregorio, former Director at the Office of Community Preparedness of Citizen Corps, she's also a former Chief of Staff of the Federal Emergency Management Agency. And finally Senator Mike Balboni who is a principal with Navigators Global and a former New York Deputy Secretary for Public Safety will be joining us. So without further ado, Marie you are up first.

Marie Royce: Good morning everybody, how are you doing today? First thing before we begin I just want to say I'm proud to serve on the Homeland Security Advisory Committee for the Reform Institute, and thank you Bob for the introduction and to Mark Delich and also Cecilia Martinez for inviting me to speak on this panel.

It is a great to have an opportunity to be with such amazing, terrific panelists such as Liz and Jeff; they have tremendous experience on both the Federal and State level. But what I'm going to do today is take the panel from general to specific and I'm going to really start from the global

level. My position is Director of Global Strategic Initiatives, but before I begin I want to recognize the audience and say thank you for coming today because many of you represent many different groups. Just walking through the crowd I had an opportunity to meet members of the media today, nonprofits, and business and government of course -- and each of you has a tremendous role to play in being prepared for emergencies whether at home or work.

But I'm going to refer to Liz DiGregorio for a second to say we had a pre-meeting as a group before we gave our speeches today and Liz actually brought up a really important comment, she said 'If we were on our own for 72 hours would we be prepared for the emergency?' So let's think about that, if we knew we were going to be on our own for 72 hours, and be responsible for ourselves, would we be prepared for that emergency? It is really a very important question.

Now as background, I want you to know a little about what my company does, and why I'm here. Alcatel-Lucent is the world's largest broadband manufacturer. You might have heard of Lucent Technologies, Bell Labs, we have a presence in 130 countries and in the United States our major suppliers are Verizon and AT&T.

The research and development engine for the company is Bell Labs with 25,000 active patents. Bell labs works in the areas of resilience and it's critically important when it comes to emergency preparedness. And why? Why? It's because of SCADA (Supervisory Control and Data Acquisition). I don't know if anyone here is familiar with the word, term, SCADA, it's an acronym that refers to the fact that there are 12 to 15 critical interdependent infrastructures and sectors that are interdependent on each other.

For example in Seattle there was a telecommunications outage in The Port of Seattle and all of the ships stopped. That is a non-intuitive event. Actually, I was just looking at the little report here, *Advancing the Reform Agenda,* and telecommunications actually permeates every one of these areas whether it's port security, transportation, inner upward mobility, emergency response. Let me tell you a few of those areas healthcare, energy, financial services, and agriculture just to name a few.

4

It made a lot of sense for Bell Labs to support the resilience conference in New York in March 2008 and a subsequent panel discussion in Washington, DC. As a representative of Alcatel-Lucent, most specifically Bell Labs, I'll share with you why I'm here today.

First I represent the private sector and two I have a tremendous amount of respect for technical expertise… and I believe that it's important for technical experts to be engaged in the subject of resiliency and emergency preparedness. Our Bell Lab's Fellow Karl Rauscher, who spoke at the *Building a Resilient Nation* Conference last year, shared with me that his son Konrad was reading the IEEE Magazine, which is for the Global Engineering Society, and they actually had a report about the Terrorists of 9/11.

And I think you should be made aware, and I'm sure you have maybe thought about this a little bit, it's that many of the Terrorists had technical backgrounds. Khalid Sheikh Mohammed pursued his education in the United States, earning a degree in Mechanical Engineering from North Carolina Agricultural Technical State University in '86. So just as an example it is important for not just our policy makers and government employees, but also our country's technical experts to be engaged in emergency preparedness thought leadership.

So what does this mean to you? Globally stakeholders are engaged and this conference demonstrates the fact that we are in the United States too. The European Union Commission asked Bell labs to help them, their member states, because what they were interested in learning was how they were prepared for resilience. So we were asked to do what they call the Availability and Robustness of Electronic Communications Infrastructure Report, it is called ARECI.

Think of any size group, but this is a pretty big group of people, they were 150 European stakeholder experts who were engaged, that's 150. Eighty-one intrinsic vulnerabilities and 200 critical trends were considered for impact and resilience in the European Union. Bell Labs did this study, the outcome was 10 recommendations; 86% of the stakeholders agreed or strongly agreed that the number one recommendation is…OK can you guess what it is? I can give you a

hint, it's the subject of this conference today and what would that be? *Resilience and emergency preparedness*.

Number one out of the 10 recommendations with 150 stakeholders was that emergency preparedness is worth considering for implementation. So everyone said we need to actually be prepared for the emergencies. Think about the European Union for example, Eastern Europe… is its governments totally prepared for potential threats -- let's say from some of their neighboring countries? So again the frame work of this report is totally in line.

The resilience metric, measuring preparedness before disaster strikes is interwoven with the concept of resiliency. Protecting infrastructure is unrealistic; our focus should be on resiliency. Resiliency is the capacity to maintain continuity of activity even in the face of threats, disaster and adversity.

We cannot deter all threats or prevent all natural catastrophes; a sound resiliency framework should have emergency preparedness be national in character and international in scope, recognize that America is part of the Global marketplace, focus on more than just physical infrastructure, remain proactive and manage public expectations.

In fact, before I came today I was thinking about [Hurricane] Katrina and about the public expectations of that event. Resiliency and risk; risk assessments and risk reduction are at the heart of a sound resiliency strategy, although there are a number of risk assessment methodologies they all consist of common components: threat assessment, criticality assessment and vulnerability assessment.

So here are some questions to think about; as a nation are we prepared or are we reacting? Do you believe that your robustness strategy should be stable or unstable? Naturally resilient or delicate? The National Strategy for Homeland Security Report stated that terrorism depends on surprise. The 9/11 Commission Report states 'failure of imagination…' in fact I keep this [9/11 Commission Report] in my office and when you really think about it, it is failure of the imagination. Think about the fact that you would use a plane as a weapon. So in order to be

prepared before disaster strikes a government, or corporation, an individual needs to be prepared and not be reacting. That focus of Bell Labs has stayed consistent today as it has pre-9/11.

The emphasis continues to be placed on vulnerabilities, which is a characteristic of any aspect of the communications infrastructure that renders it or some portion of it susceptible to damage or compromise. This is important, vulnerabilities are finite, fixed and well known and are the only ways that threats can impact. Threats -- anything with a potential to damage or compromise the communications infrastructure or some portion of it – they're infinite in number; knowledge value is fleeting and each has permutations.

We react to resist a threat, the cockpit door is locked, shoes need to be removed, liquids are taken away, our reaction resist the threat, so I'm just going to give you an example has anyone ever had a glass of wine on a plane? What do they usually serve that in? A bottle? Ok -- could you ever do anything with a bottle? And use it as a weapon? But yet you have a plastic fork, right? So what do you think of the two would be the bigger problem? What, in other words, would that vulnerability potentially be … in that glass bottle? So, in other words, start thinking about the vulnerabilities instead of just the threats.

The fundamental lesson is the need to identify and address vulnerabilities independent of threat knowledge. It doesn't mean you abandon threat and risk analysis; rather you supplement it, balance it and you integrate it. The communications infrastructure used by Bell Labs is the eight ingredient framework enabling a true post 9/11 approach by enabling systemic interests and intrinsic vulnerability analysis.

As Lord Kelvin stated 'to measure is to know' the eight ingredient frame work has been utilized by NSTAC, NRIC and the European Commission. The eight are: power, which is battery limitations and fuel dependency; environment, where there is something that is exposed to the elements; software; hardware; payload, networks; human, for example a human could have divided loyalties; policy, which is stressing vulnerabilities.

Some final thoughts: I'm global. I actually speak to a lot of companies around the world and I've been asking them, 'have you seen a slowdown in public safety, emergency preparedness?' and what they've been telling me is that there is less money for preparedness globally. So here is what I'm going to propose is that the shift should be to spend limited resources smarter and focus on intrinsic vulnerabilities. Limitations should be communicated and responsibilities should be shared. It is very important that we've got all the stakeholders in the room today, we should coordinate and we also should have preparedness drills and finally we should be more effective in engaging scientific and engineering expertise. Thank you very much.

Bob Kelly: Thanks very much Marie. And you know, even though I did grow up in a tough neighborhood, I'd never actually used a bottle as a weapon, but that is a really good point. It's so obvious, my son likes to refer to it as 'security theater' that we go through when we get on a plane these days and I think that's really a noteworthy item to think about the fact that we're using plastic forks and plastic knives but we're handing out glass bottles, amazing. Ok, next up is Jeff.

Jeff Gaynor: Thank you Bob and thank all of you for being here today, I'm Jeff Gaynor, oh and Mark [Delich] thank you for making this all happen also want to thank all of you today for your vision and courage and being on the forward edge of what is clearly going to be America's next preparedness metric. My time for this segment is limited, but let me get some ideas passed along.

Infrastructure operation is the foundation of and empowers any modern nation. Nothing happens in any modern nation without infrastructure. Agree? You came here today using all manners of infrastructure and, you crossed a number of [infrastructure] sectors as you got here today didn't you? Well, if everything is enabled by infrastructure you would then logically have to leap to the conclusion that fundamentally infrastructure is at the heart of all national security and homeland security issues.

Can we make that leap? If the infrastructure doesn't work nothing else is going to follow on. America's infrastructure is -- like the top of my head – old, over-stressed, has little excess capacity. Further, infrastructure are accessible, are exploitable and are high pay-off targets. In

fact, from the predators [point of] view infrastructures are consequence-amplifying targets. Those are the ones that you want to go after. In short, I believe that the American infrastructure has become our nation's Achilles heel. We have allowed it to degrade to the point that if you want to spread misery throughout the country rather cheaply, attack critical infrastructure nodes.

The Chinese have already figured this out. For those of you who haven't read *Unrestricted Warfare,* in 1998 a couple of Chinese [People's Liberation] Army Colonels got together and noticed what we accomplished in the first Persian Gulf War and decided that messing directly with the American military is really not a smart thing to do. Too many type-A personalities there. We tend to be a blunt instrument; we damage you permanently. So, the answer is 'let's not directly engage the American military.' Instead go after the American infrastructure.

They published the book in 1998, and told us what they were going to do much like the *Communist Manifesto* said what it [the Communist Party] was going to do, *Mein Kempf* said what the Nazi Party was going to do, Mao's little *Red Book* said what the Chinese version of Communism is going to do and if you're reading the newspapers and see how well the Chinese are doing in sending us some of their defective products and how they are playing in cyberspace you have to believe they're doing exactly what they said they would do in this book and are being very successful at it. It's also kind of fascinating that while the Chinese care little about intellectual property, given their presence there and the significance of the Panama Canal Zone, they chose to copyright the book in the Panama Canal Zone.

In March of 2005, perhaps recognizing all of the above, then Secretary Chertoff asked his Homeland Security Advisory Council to provide recommendations on advancing critical infrastructure policy and planning to ensure the reliable delivery of infrastructure services, while simultaneously reducing the consequences of their exploitation, destruction, or disruption.

After about 9 months of work, on January 10th 2006 the Homeland Security Advisory Council in public session recommended the Secretary 'Promulgate critical infrastructure resilience as a top level strategic objective, the desired outcome to drive national policy and planning.'

In the absence of making that transformation from protection to resilience we've continued what are basically iterations of Cold War infrastructure policy. While continuing to focus on protection, we've had among others, Hurricanes Katrina and Ike, wildfires in California – some caused by downed power lines, we've had bridge collapses, steam pipe explosions, eroded and rodent-weakened levees in Nevada that resulted in a town being flooded, most recently ice storms.

These kinds of events are going to happen, but we need to change course and get ahead of the power curve. At a Critical Infrastructure Protection Conference General Russel Honoré [the Commander of Joint Task Force Katrina] last October bemoaned that we are always behind the power curve on preparedness. His point was we need to get to what he termed the 'left side of the event curve,' we need to get into the preparedness side. He added that for every dollar you spend on preparedness you save six to nine in recovery.

I agree with the General, we are spending too much time responding and recovering, not enough time and effort preparing. So what's wrong with current policy and plans in addition to the fact that every time infrastructure protection is tested it fails? Ask yourself the following question: How much protection is enough? Got an answer? How do you build a federal or a national program when you don't have a goal that you can objectively measure? How do you know when you get there? How do you know how you're making progress on the way? Again, how much infrastructure protection is enough? What does a fully protected or at least adequately protected family, business, community, state and region look like?

Again, the problem is that without any benchmarks, without any destination any road will get you there. We've had a lot of process and a lot of activity involved in infrastructure protection, but process is not progress and activity is not accomplishment. The best way to sum up where we are right now comes from Secretary Chertoff. He spoke before the Brookings Institution in September 2008, and while he acknowledged that we've been successful in preventing terrorist attacks on infrastructure, his quote was: '. . . regrettably I don't think we've done quite as good of job of protecting common good assets, common good infrastructure against simple wear and tear or threats posed by mother nature.'

Terrorists may be evil, but they're also patient, clever and agile. They may be the world's worst people, but they're much smarter than a tree limb in Ohio, ice, and hurricanes. So really all you can objectively measure is there hasn't been a formal attack on critical infrastructure by people waving a [copy of the] Quran. I don't know what you think constitutes a terrorist attack, but I give you the Beltway Snipers, and events at Virginia Tech, Northern Illinois University and Westroads Mall. And the thing to remember in all of these events, is while they did not include Quran waving, the process that they went through to include the reconnaissance of the target, and gathering the means to execute the operation are exactly the same.

What then can we say? Giving the Secretary his due, there has been no formal attack on critical infrastructure. I personally doubt that this is largely the result of infrastructure protection policies and programs. Instead I would give credit to emergency responders, police, fire, and Americans keeping their heads on a swivel looking around for and reporting unusual activity and the efforts of the intelligence community.

Enough of the dark side, the good news is we have the experience, intellect, the imagination, ingenuity to conduct an infrastructure revolution and, as the enabler of everything that happens in our country, use infrastructure modernization to create a 21st Century American renaissance. What we are trying to advance here today is a new and pragmatic means of objectively measuring efforts, not only just to protect but to ensure a predictable level of all hazards and infrastructure performance.

Rather than asking what are the risks and vulnerabilities and the number of protective measures (e.g., gates, guns and guards and the buffer zones and [infrastructure] sector committees) you are going to apply to a problem, ask how long you can be without something of value to you.

Visualize a Venn diagram and in that diagram the top circle would be what's important to you. You can be an individual, a family, a business. You can be a community, you can be a region, you can be a state or a nation.

The next question is a little tricky because protection has, despite public perception to the contrary, never meant freedom from consequence. The second question is time -- how long can you do without it? So far we have: What's important to you and How long can you do without it? The time question constitutes a major shift in thinking from protection to resilience – it forces realization of the fact that despite protective measures, losses are a fact of life. The third question and circle as we complete that Venn diagram is: Adaptive Capacities. In other words, what capacities do you have identified and tested and know are available that can back-fill what is important to you within the time that you can be without it? Too simple a solution you think? Frankly, it has to be. One of the advantages of an operational perspective is you seek to make complex issues uncomplicated and executable.

What's important to you, how long can you be without it, and what capacities can you put in place to back-fill what is important to you within the time that you can be without it? These are all questions everyone can effectively answer. Where these questions and three balls come together in the Venn diagram—that area in the middle where they converge—is where you've achieved resilience. Again, you can apply this [analysis] anywhere, as an individual or nation.

If I had to give you an operational definition of resilience, it would be something like: the continuous time-critical, risk, and ground-truth based (meaning not "top down" but coming from individuals, businesses, and communities to both ends of Pennsylvania Avenue), all-hazards analysis of activities, assets, suppliers and service providers and the identification testing and as required the application of alternative capacities.

That's a long definition, but that's how I believe you would go about operationalizing resilience. Further, the metric that we just talked about—time—is pragmatic. It is dealing with and measuring life as it actually going to occur; it's comprehensive and compatible across whomever and whatever entity is asking the question, and it is objectively measurable. I go back to the original question, how much protection is enough? I understand some may not like time as a measure of preparedness, it passes faster the older you get, but time is understood in minutes, hours, days, months and years it's universally accepted and it's actionable. I don't think you can ask too much more of any metric of success than that. In fact, I'm pushing my time allocation

right now. I look forward to your questions later in the program and I thank you for your time thus far.

Bob Kelly: Thank you Jeff, next up Liz DiGregorio.

Liz DiGregorio: Thank you Bob and to the Reform Institute, Mark, everyone. I'm a newcomer to the Institute, I don't have a history with it, but its' been a great group to work with. I'm very proud to be here now as a citizen, having spent my entire life in emergency management and in community preparedness. I welcome the opportunity to be here today.

All national crises start out as local problems and the way they bubble up is what's so important. If you look at everything from flu becoming pandemic, to methamphetamine becoming a drug crisis, to bad housing loans becoming the economic downfall of this economy, to a flood that starts in the upper Mississippi suddenly flooding the entire Mississippi delta. When you look at how integrated and how interconnected we are we go back to the whole concept that everything does start locally.

Based on that, I'm going to talk a lot about neighborhoods and this concept of getting back to local government. When we talk about local and resilient communities what do we really mean? What makes a community bounce back faster, better and wiser than before the crisis? Why can some families, communities, institutions and people bounce back more quickly?

When we look around America all we have to do is look around, see the news, watch the news, hear the news we know we are a nation in crisis, but we're also very resilient. Many of the same principles that people are intuitively using today to make it through this manmade economic crisis are the ones that we can use to traditionally think about coming out of natural or manmade disasters.

How do you know you are resilient? Well you know it when you see it. If you've made it through the crises and you've bounced back and you say I'm better off for it, you're probably pretty resilient. In looking through some of the literature and some of the studies it seems to me

that the real benchmark question is one that is based on time much like it would be for a business continuity question and, as Jeff said, how long does it take for a community to respond, to come together, organize, act, learn and adapt to the changes caused by that critical disruption? As Jeff said, 'How long can you do without x?' How long can you do without running water? Can you survive 72 hours without running water? How long can you do without electricity, a paycheck, public transportation, your blackberry? All these things matter and questions have to be answered.

It is the concept of vulnerability, that is, the degree to which people are impacted by a hazard versus social vulnerability: how much will it cost if a hazard occurs in a given community and how many lives will be lost or affected versus the social resilience of a community. How long will it take for that community to respond, self organize and incorporate the lessons learned?

There seems to be a trend in the literature as to resiliency: at the community level there are eight characteristics that I've been able to find that I would like to share with you very briefly. 1)The belief that we are not in it alone, that the sense of community has not been destroyed, that the fear factor from a terrorist event or from natural disaster has not taken over the community. 2) Knowledge of the risk or the risks in that community and what it personally means to the people in that community and what the consequences are going to be if they don't prepare. It is critical for citizens to know and be aware of the risks and to know what to do and, as equally important, what not to do. 3) Proactive governance: having a take charge leader who can calm the storm, who can provide frequent, accurate dissemination of useful information. 4)There are strong auxiliary relationships between federal, state and local government and the local leaders have established relationships with all other community groups prior to the disaster occurring. 5) Built in redundancy exists. There is more than one way of coping. There are backup plans, do you have a plan B if plan A is not going to work? 6) Robust social networks and resource partnerships, those non-profit organizations that come knocking on your doors, business, neighborhoods, faith-based groups, workplace groups, all of those groups have to be engaged and meaningfully engaged in the planning and in the exercising during peace time not just paid lip service by those in charge. 7) Resilient communities do have strong grassroots, strong community organizers, and they can easily answer who can be tapped to help and how. 8)The

division of labor between what is suppose to be government and what is suppose to be private sector are blurred or meshed.

This hierarchical system of federal, state, local and then maybe non-profit and then maybe private sector when we call you, when we need you doesn't exist in the template of a successful resilient community. To be resilient, they all have to be at the table with specific roles, know what those roles are, and participate together. Private and public sectors act responsibly, share good policies, work on good plans, such as disaster resistance infrastructure and evacuation plans. And, these are all in place, the public knows about them in advance, they are implemented, they are exercised, and they are revised.

Good communities have built-in contingencies to mitigate the cascading consequences of a disaster. And they have a sense of self determination. You can't make someone or some group "be resilient", you have to want to do it, you have to be prepared, you have to have voluntary participation. Yes, you need the community organizers, the community activists to spur the community along…but we're all in it together.

There are multitudes of surveys that are going to tell you what preparedness is and how prepared communities and individuals are and there are miles of distance between the responses depending upon how detailed the prompting question is. You can ask a community, you can ask a person, " are you prepared?" and you are going to get the answer yes. But when you start drilling down into specifics is where you are going to get the real gray areas. Perhaps we need to re-think the model a bit.

Maybe we are focusing too much on individual preparedness as the end state where we should be focusing on community preparedness, that is, neighborhood by neighborhood preparedness, as the end state. If a community is resilient then by default the people who live in neighborhoods in that community would be resilient and would be prepared.

It's also a workable way to break down the whole of the parts in ensuring that everyone is prepared, that a community is prepared and also a way of pinpointing the weaknesses and the

areas to be shored up. When you look at a local operational plan, does it really drill down into how prepared the various neighborhoods are? Does it really involve the private sector? Can every neighborhood in that community evacuate and are there plans to specifically use whatever faith-based groups are in that neighborhood? Are there other non-profit groups that may have buses or school buses that can help people evacuate very quickly. Are they all built into the local plans?

Why neighborhoods, why local governments? Because everybody lives somewhere and everybody has some type of a neighborhood that they can relate to, even if it's a virtual neighborhood. They're the foundation of our society, they're the foundation of this country, everybody can relate to their school, they can relate to their local fire department, their local police department, it's local, local, local and yet are they ready?

Are we ready to help them help us be more resilient? No matter which way you define a neighborhood, every neighborhood should be able to plan for its risks. If you live next to a power plant, if you live next to a water and sewer distribution system, is it protected? Do you know if it is protected, do you know what would happen if it wasn't and what the impact would be? I come from a very small rural community in New Mexico and it has trains running through it that may be carrying hazardous materials. Few if any people in that community are prepared as to what would happen if there was any type of chemical accident. That's how specific the plans have to get, not only for the large cities but for the small towns as well.

It's not that this isn't being done. If you look at what FEMA has done, and what the Department of Homeland Security and others have put in place, it's all being done, but it's just not being done enough. There are many initiatives within the federal government to make these communities resilient. There are some initiatives now with the new Administration that are going to absolutely flood the capacity of non-profits and other local groups with funding. The newly proposed Service Act and some of the other legislation going through Congress could be an incredible resource for local and state governments, but they all need to converge to maximize the return on investment.

Now what I sense is that everything is going to be that the buck stops with the local government and the local governments are already inundated with every great plan, every federal grant program, every possible thing that has to happen is going to end up at the desk of some local emergency management planner or homeland security planner who will be saying 'I can't cope with it', it is too much too fast. You know there's possibility of a lot of lost effort, lot of duplication, lots of false starts. I think it's really imperative that the federal government take a look at all of this and somehow create some type of a national clearinghouse, some type of a National Center for Community Resiliency Excellence that would serve as a think tank, a clearinghouse, a standards and metric center, a go-to place that would provide accurate and reliable and usable information for the public and the planners. An easily accessible place where everyone could get the answers to 'what do I really need to have that would help my community be resilient?'

I've been out of DHS for about two years now and it's amazing to me to experience what a citizen would have to do to try to get the information. It's very difficult and confusing if you don't know where to look. It has made me very conscience of the fact that as a citizen there is so much information out there and there's no way to really sift through it, unless you've spent a life dealing with it and that you know where to look.

I think we are doing our citizenry and our communities a disservice by not somehow aggregating this information and making it easy to find and easy to do. I think Congress could set aside on one of their trips, one of their recess trips each year for a community resiliency day where they could actually go out to their constituents and learn firsthand what some of the issues are that they're facing, bring those issues back, make legislation better, make federal programs better as a result of that.

There is a time to really look at all of the programs across the spectrum in the executive branch that deal with community engagement and that somehow touch on this concept of resiliency, where are there duplications? Where are there programs that can be dropped? Where are programs that can be boosted and then what do we really need to do as a collective whole to

make it easier and more effective for the local governments to implement this whole notion of resiliency?

I've been a long time proponent of DHS in particular and others of re-tooling the way they look at their full scale exercises. Full scale exercises are very costly. They are very time consuming, and perhaps not as effective in really getting down to the nut of the problem, really drilling down. What I have experienced is that the private sector and the non-governmental sector…this huge infrastructure slice of the pie, usually gets a footnote and it's usually people within the federal, state and local levels exercising with themselves or with the contractor who owns the contract for the full scale exercise.

Instead, how about really changing them and turning those exercises upside down and saying we're going to do a series of frequent good table top exercises. We are going to focus on specific issues and at the end of the day everybody in the room is going to know exactly what the evacuation plan is, what the warning and alert system is, who makes the decisions and when, and were going to be able to solve the problems incrementally. But, for this to happen, there needs to be a big change in attitude. I know firsthand that with emergency responders, by the nature of the work, are part of a very paternalistic society. It is very hierarchical. The mind set is federal, state, local, and then everybody else. 'We will take care of you.' I think the time has changed where that whole model has to change and everybody has to be integrated and part of the solution.

Bob Kelly: Thanks, Liz. Senator Mike Balboni.

Senator Michael Balboni: Thank you very much and good morning. If you're wondering how I came to get here, a little over two and a half years ago, then-Governor Elliot Spitzer appointed me [New York] Secretary for Public Safety and told me I'd be in charge of overseeing every disaster in the state for the Governor's office. Of course what he didn't tell me is that some of those disasters would be *in* the Governor's office.

I come to this discussion as close as you can get to an operator at a state level as I guess you can still be involved in policy. I have been a big fan of the concept of resiliency because I've seen

firsthand what happens when it doesn't happen. I was on the job three days when I turned on - actually I didn't turn on cause I had this nice big flat screen TV that was bought from the proceeds of drug busts in the state of New York and it was a beautiful thing right in my office - and it's on and it's the news and suddenly flashing at about 7:30 in the morning and it says 'smell in lower Manhattan.'

Now that's not unique, what's wrong with the smell in lower Manhattan? Turned out that there was a smell of mercadium which is the chemical that they put in gas, natural gas to give it some kind of odor so that when it enters into a space you can know it and get out of it and there was a smell that permeated the entire New York city subway system. We had no idea where it came from, but people were actually getting sick up in midtown Manhattan - it started from Battery Tunnel.

As you can imagine that day was completely lost in a maelstrom of everybody -- including the chief writer for the New York Times editorial page -- calling up and saying 'what's the smell, where's it coming from and what are you going to do about it?' I had absolutely no idea what I'm going to do about it. And we did all sorts of things, we sent all sorts of teams to find out what it is, the only thing we know is it came from New Jersey; it's the only thing we know. Which became my answer for so many things in my brief career there, but what it pointed out to me was there were things that happened, we actually believe there was a temperature inversion that caused whatever the source point for the release was … it basically facilitated this type of distribution.

Now for those of use that spend our waking days and nights thinking about the bad guys . . . well if this could happen in a naturally occurring or manmade incident, what possibly would happen if a bad guy got a hold of this? Could it happen? Yes. Do you need conditions to be perfect? Correct. But again it points out the fact that what would we do to stop it and let's assume it really was an attack, what would we do to combat it and continue moving on?

The next story, there was a police officer (unintelligible), who was executed in New York City and his body was laid to rest in Brooklyn. I attended the wake and I got out with my personnel

and said 'we're going to be here for just ten minutes or so, so I'm going to leave my pager in the car to juice up and going to go and spend some time.' Well as it turned out there was small home where the body was being viewed and I spent about half an hour in there, I get back to the car and the page has seven messages, this at 5:10 at night, and the phone is ringing.

I get on the phone and it's the press secretary for Governor Spitzer who says, 'Where are you? And what do you have for us?' I said 'What you talking about?' He said 'Where are you?' I said 'I'm at Sheepshead Bay, I'm at a funeral.' He said 'get your ass back to midtown Manhattan there's been a major explosion.' So I jump in the car, lights and sirens get back and there is a steam blast.

A block away from Grand Central Station is this steam rising up, I stood there with Nikolas Scarpetti who's, he's the head of the New York City Fire Department, and we just couldn't believe what we were seeing. This wall of steam - but then radiating out from it was these rocks which were the concrete and then shoes. It was in the summertime and just like in 9/11 everybody ran out of their shoes. All you had was shoes and rock, as far as you could see.

The concern obviously was that the steam pipe was incased in asbestos and now the steam had taken this material and put it all over the City. Well, we now had to deal with the clean up, but these were the three questions that I didn't have answers to just like in the smell; one was how do you clean up all this stuff? Two, how do you fix this but make sure that something else isn't going to go boom in the City, it was the result of doing road work but then water seeping in, it had rained that morning -- torrential downpour -- and the water had actually seeped in so what other steam pipes could go right now? And then the big question, wait a minute this steam pipe was put there in the end of the 1800s, how do we do a survey of all of the other infrastructure in New York City?

In New York City … Boston, in particular I would say New York City, aging infrastructure is becoming more and more of a problem. So fast forward, now what then as the guy that was in charge of making sure that this stuff didn't go boom -- obviously New York City is its own universe and they do a great job of protecting themselves -- but what do we do? So I began to

20

look for different ways. And this really brings up the whole question, what is resiliency? And you know [Jeff] Gaynor here, I'm a fan of this guy, he's got a great way with words and describing things, but at the end of the day I would challenge any one sitting there and point to a project currently under way that defines resiliency, because resiliency means many things to many people.

Well here's how I dealt with it in the State of New York, created a system called New York Alert -- information resiliency. So much of what we do in this world depends upon people and people are the best resources to get themselves to safety, to get out of the way, not to become victims so what you need to do … you need to inform them. We created a not-for-profit free system which you can go into a website, which in fact if you do: www.newyorkalert.gov, you will get on to the site and if you travel to New York you can sign up for it and we will give localized emergency information.

The way we designed this was really for the micro burst that came across many parts of New York City that summer, I mean not New York City, New York State. And it allowed county managers to go onto the website and say we have a natural weather service report it's indicating very, very strong cells coming in this direction if you're on this road or this road go here or get off the road. It was multi-messaging so it was the alert signs on top of the highway, it was your radio, your fax machines, your cell phone -- multi-media information services for free.

We also developed a program call New York Delivers. After [Hurricane] Katrina what was the biggest cry? Well, we didn't leverage the private sector. We never got Wal-Mart to the table. Wal-Mart is the supply chain mangers extraordinaire. But yet when you actually drill down and start to look at how to get from point A to point B on supply chain management what you realize is if you don't create a pre-existing contract that guarantees any time there is a crisis you're going to get the things you need, well then it basically is just a plan on the shelf … it doesn't work. So, we actually created pre-existing contracts with major vendors for things like ice, things like water, building supplies. What we actually said to them was 'you give to us first and we'll help distribute it.'

The other thing we started talking about was cook-chill. I over saw all the 62 prisons in the state of New York -- 62,000 prisoners, 33,000 employees to watch them. What happens if there is a major, major event that prevents trucks to travel to the different facilities? What if you have a strike at your centralized food distribution center? You want to cause a riot in a prison I'll give you the surefire way, don't feed the prisoners … and you will have a riot.

So what do we do? We created a plant on our campus, cook-chill, where we basically created this new system where we put food in, cooking it, freezing it, and then sending it out in big, big barrels that you just put into steam water and you serve. We could do this perpetually; we created this really, really good system that didn't rely on a lot of other transportation because we had stockpiles on the site.

Now what are the things we didn't do? What are the two examples of resiliency that we did not do? One, we had these people come in to see me and - I basically got pitched by everybody on the planet to buy something - they wanted to sell me some gadget, some program. It was a great concept it was a floating power station. It was on a barge in the middle of the harbor in the City of New York and they would move it and it could latch on to existing power plants. As you know if you take a look at the footprint of New York City there are about 6 or 7 major power plants all along the river. So if you came in, if you lost one of them because of a strike from a thunderstorm, an electrical strike, or because you had a fire in the plant you could actually tap in and provide resiliency in terms of a floating power plant.

Why didn't it go? Because it was enormously expensive and nobody wanted to pay for it, nobody had any interest in paying for it. The other thing that we were not able to do was that New York City gets its water, its drinking water from the reservoirs that are about 50 to 60 miles north of the city and it does so by these tunnels. Well tunnels are old, tunnels are leaking and tunnels can be taken out. Well what sits next to them, on Long Island there is the longest sole source of aquifer in the Northeast. So it's my thought that we tie, only for emergencies, the New York City water system and this system so if God forbid something happened to the water coming down we could actually have some redundancy.

Never happened, why? Folks on Long Island, where I live, would have shot me in the head and anybody I work for, if I ever suggested that we'd contaminate the water source on Long Island. But there you have five examples of what I call resiliency. Now from a broader prospective, you take a look at security right, I mean I also oversaw the enhancement of the four suspension bridges in New York City, in and around New York City: Verrazano, Throgs Neck, Whitestone, and Triborough.

You know how you secure a bridge? You go in and take a look at all the points of vulnerability and so you put casing on all the wires that come down, you protect the footings and you protect the columns. Each bridge is approximately $42 million. Because you had to add on security after the facility was operating in a way that you wouldn't stop the operation of the bridge, enormously expensive, could you image if we had taken those steps when we built the bridge? And that's of course the concept of baking in security. Enormously expensive and you need the project to begin in order to do that.

Where do we go from here? My suggestion is we take a look at the stimulus package and we don't just simply throw money at the problem, but we do so in a way that actually designs security inherit to the project and not as an add-on somewhat later. And we have this enormous ability now, and if we miss it we are going to miss the boat. In addition, Americans have lost; have fallen out of love with technology and innovation. Yes, I said that, now you may say 'what do you mean? I've got this new iPod.' Yes that's what I refer to as retail technology, it is not transformational technology. We are not looking at our world and saying what is it going to be in the next 5 or 10 years, we're not saying what transformative technology applications need to be thought of, researched, developed and applied.

The biggest example of this is -- what is our next moon shot? What is our next space exploration? I mean if you go back in time and you see the innovations we derived from our exploration of space it was enormous. And what it does is it gives variation to the intellectual theme of our society; well we've fallen away from that. But yet as our infrastructure continues to get more fragile with age and overuse, as our world continues to expand in the numbers of people, the bad guys are getting more and more of an advantage.

Go to Google, pick the Sears Tower, the Empire State Building, the LAX [Los Angeles International Airport] Complex, if you are really good you can get the floor plans, you can get the Google Earth images. There are companies now that can take those images and turn them around so you can actually see where the doors are, actually go in. So much for having to go case the joint, which is by the way the predicate for all of our counterterrorism measures in urban centers. We are depending upon the bad guys to countersurveil, which means we use random patrols, developing unpredictable responses and hoping to either deter or catch the bad guys doing it.

Well how do you catch a bad guy who's sitting over some place in Southeast Asia with a computer and going through your critical infrastructure click, by click, by click? And developing really the best way to get at that facility? So I think we have an opportunity now to embrace resiliency, but we must avoid the old joke … the old joke -- the botanist, the engineer and the economist trapped on an island and the botanist says 'you know we've got to build a boat, I found these reeds, there not porous at all we can them use as a boat, they'll float.' And the engineer says 'yes and if we curve them a certain way we will be able to get over the waves and get out and we can take this trajectory and we'll get there.' And the economist says' let's assume we have a boat … Well, let us not assume we have resiliency.' Thank you very much.

Bob Kelly: Thank you very much; your remarks were spot on as with the rest of the panel today. We are now going to open up the session to questions from the audience. I had a few that I thought would be useful to perhaps start off with and just engender some discussion. One of the things that has been sort of troubling me lately is this whole notion that we seem to be heading more and more in the direction of the nanny state, where we're bailing out banks, we're bailing out insurance companies, we have stimulus packages and all of this seems to be in the direct opposite direction from encouraging resilience amongst our population, I'm wondering if anyone from the panel would be willing to take that one on?

Jeff Gaynor: Let me see if I get this right, you're suggesting the government kind of directing everything is disempowering people….

Bob Kelly: …Stand up on your own two feet, you know, the whole notion that it's your responsibility to have 72 hours of water, it's your responsibility to be able to have batteries for your flash lights, it's your responsibility to take care of your family so that everybody knows where they are in the event of an emergency. Yet, we have a federal government right now that is bailing out banks, bailing out investment companies and seems to be headed in the exact opposite direction, I mean is that something we need to worry about?

Jeff Gaynor: Ah, yeah I mean any time the government comes in and tells people how to live their life you've got a problem. The current protection program, the current infrastructure protection program has been doing that. The top down, we'll decide what's important for you, we'll do our own assessments and pick out key critical infrastructure in your cities and tell you how to protect it, is really disempowering. One of the other things this that is disempowering is that if you do it our way, we'll give you money. You know the grant program has basically led people to doing it the wrong way and the trick is now how do you reverse that at a time, you've got the question right Bob. How do you do that? That's why I kind of went to this simple, look at your life, your family's life, go there and start building resilience from the ground up.

Bob Kelly: Thank You

Marie Royce: I remember when Katrina hit we had something we did on a volunteer basis which was called Wireless Emergency Response Team. We wanted to try to help with Katrina and actually fly a helicopter and actually see if we could contact people with their cell phones. I was involved in probably 75 calls at least where we were trying to get people through government agencies to give us an answer that we could do this, actually it was the Coast Guard that finally said we'll help you commit.

I was in a small lunch group with [Mississippi Governor] Haley Barbour and we had several companies around the table who all said we were ready to come in and help in Mississippi, but we didn't have the coordination on the ground and the empowerment of people to say, 'we'll take your help and here's what we need from you.' So what I was just going to say is I think a lot

of people have good intentions, there's lots of policies and procedures, but what really needs to happen from a leadership standpoint is the execution, operationalizing of these things. And so all you have to do is go through a disaster and find out what happens next with people who can't always make the decisions when a lot peoples' lives are at stake.

Liz DiGregorio: I may have a little bit of a different take on it. I'd like to ask a question to the audience and also to the panel: how many of you in the last month or so have reached out to someone in your neighborhood, someone in your faith-based organization, your church, your synagogue, your temple, whatever and actually extended a helping hand when you knew that they were in trouble? Multiply that by the entire country and everybody is pretty much in it for themselves.

It's one thing to say that we are becoming a nanny state, but there's also something to say that every structure, every infrastructure, every piece of the American culture as we know it is slowly falling apart whether it's the housing or the banking. There is nowhere for people to turn and people who are very vulnerable, whether you are talking about the elderly, or people with disabilities . . . there is nowhere to turn. Look at the pet population and what's happening. You are having what they're calling recession pets … people who are just dropping off their pets because they can't feed them or take care of them.

We are at a real crossroads here of how do we go back to pulling yourself up by your bootstraps and being independent and personal responsibility versus how do we take care of people in our neighborhood who may be hurting, who can't take care of themselves and how do we re-engender this American attitude of we're all going to get through it together, we're all going to help each other.

Yes, the government has a role in it, but it's not to supersede everything else and saying 'oh it's just the government taking care of it, just wait for the government' but how can we become a part of that. And I think we can't forget there are a lot of vulnerable parts of our American culture out there. Think back to the people of Ward 9 in New Orleans during Katrina … people who could not do for themselves. You look at the statistic that 95% of all emergencies -- it's the

bystanders or the victims themselves that are the first to respond and when they can't respond who is suppose to be there for them.

Bob Kelly: I'll retract my use of the word nanny state. Bill?

(Audience Question) **William (Bill) Raisch** - Director, International Center for Enterprise Preparedness: Several issues were brought over the course of the morning; certainly the concept of what is resiliency? Trying to get some sound gravity around that need for flexibility maybe a market-based approach; you also need the government to be a catalyst, but perhaps not a dictator in all of this. I would ask the panel where appropriate their thoughts on the Private Sector Preparedness Program that is currently under development by [Department of] Homeland Security, passing law in August of '07 that focuses on a common standard, in this case a common standard, built up from private sector experience, a voluntary certification to that standard, either a self assessment, second party or third party and an important connection over time with market-based incentives around issues of insurance, legal liability litigation, rating agency acknowledgement as well as important supply chain technology. There is an opportunity to re-tool out there. Is it the be-all-end-all? No. It is evolving through DHS currently and I'd be curious of the assessment of players on the panel that might have some comments to offer.

Bob Kelly: Who would like to field that one?

Sen. Balboni: I have a tale of two cities, first one was in 2004, I wrote the first Chemical Plant Security Act in the nation and it was a voluntary law. Essentially what we did was we brought in all the chemical manufacturers and producers into the office and said 'Ok guys we're very concerned obviously about your risk profile in the state, we want to see where you are.' And they came back and said 'well if you try to regulate us we're obviously going to fight you in court because of the Interstate Commerce Act and this should really be a federal thing. But, tell you what, if you'll come in and look at our plants and help develop a vulnerability profile for us using your expertise that we don't have to pay for and we provide all the information to you and then you help us assess our plans and readiness after that and get us to a state of readiness and

tell the public that we're ready, well now that's a win-win. And of course you have to do it without penalties.'

People said to me, 'Balboni you're out of your mind, the chemical companies, the big bad guys, are never going to come to the table … they want to operate like this.' Horse manure, that's absolutely not correct. You know everybody seems to forget there's mutual self interest from preventing a chemical plant from blowing up. And we did the law and we had a 99% compliance rate and the one plant that didn't comply was eventually made to comply. Of course now take that and look at what CFATS has done, or trying to do, actually the reauthorization is coming in the fall, that is going to be a fascinating thing to see, you know, first of all how much interest is there in perpetuating CFATS.

But then there's the other issue -- and the clarion bell that is ringing in this town and I think globally -- is cyber security. And cyber security is another area that I oversaw, the whole department basically provided for cyber security for the entire City of New York and actually exported it to 6 other states and provided services; but here's the difficulty of dealing with the private sector and cyber security -- the only way that you can truly present a model or a strategy for cyber security is we share information. Now inherent in that is the company has to be willing to acknowledge they've been breached and here's how we got breeched and here's what happened … companies aren't willing to do that. Why? Well because they don't want their competitors to know that they've been breached and somehow compromised.

They are concerned about where this information goes and maybe now hackers will learn from what other people have done and so you necessarily from the private sector perspective have to have security and secrecy, but they know how to get that and there is a vast, inherent distrust of big government coming in and telling businesses 'this is how you should do it.' But of course the irony there is that you can do all the security systems you want in your own operating system, but it is the vendor or the other people you are deal with that will provide your vulnerability, it truly is the weakest chain that will be your sea level of your cyber security. So a lot of ways to go, I think I have some ideas in terms of how we could do that nationally, but the President

hasn't called me yet. We're waiting for the phone to ring, but it's going to be a challenge going forward.

Liz DiGregorio: There are a couple of practical things that are happening that bear looking at and one of them is the Citizen Corps program. I know that they've now started a pilot called Net Guard. Net Guard actually was mandated when the Department [of Homeland Security] was created. What this pilot is going to do is take a look at four communities -- and I remember one of them is the Austin, Texas area -- where there are communications and IT smart private sector people, who can be pre-identified and work with the local governments so they would be ready in case that there is an IT or communications disaster, as part of a natural disaster.

One other thing that Florida has done, I think it started in Talleytown, and I think now the state of Florida has adopted it and you can actually find it now on web, it's called Hurricane Biz. They did something very interesting with the private sector that I think needs to be replicated in terms of table top exercises -- they insisted that all the community leaders be there including all the major businesses, whether they were small retail or some of the large business and put them through a series of table tops and specific questions; one question being, 'do you think if we had a hurricane hit you could still get your supply in of whatever it was?' And the person said, 'of course I could.' He said, 'Well pick up your phone right now and call your supplier, give them the scenario and ask them the question of can they still supply the goods?' and the answer on the other end of the line was, 'Sorry you're out of luck. We can't get there.' And having that type of realism interjected into a table top exercise is where it really makes a big difference.

And yes I think that the Private Sector Preparedness Council is a start, but it needs to go further. Perhaps the biggest area where it can make some inroads is looking at the National Response Framework that FEMA and the Department of Homeland Security worked on last year and not treating non-governmental and private sector as an annex that is somewhere out in the ether, but something that has to be integrated within each emergency support function so it truly becomes a handshake and a partnership between government, non-governmental and private sector.

Bob Kelly: Just to jump on that and also refer to a point that you brought up earlier, something that the [Reform] Institute has been promoting for some time now is this notion that we really need to spend more time in helping to ensure resilience in the area of business continuity, particularly for small- and medium-sized companies. You know we believe that research indicates that the large firms, the fortune 500 firms, have solid business continuity operations plans, but that's not necessarily the case with the small- to medium-size firms.

And the small- to medium-sized firms are as vital to our nation's economy as the large ones and a gap that we pointed out, and in fact I testified in front of the House Homeland Security Committee last summer, and the point we tried to make is the fact that an important role for the Department of Homeland Security is to act as this clearinghouse, a center of excellence that I believe you referred to earlier where we can provide, where this is an opportunity for DHS to provide resources and expertise to these small- and medium-size firms so that they can know how to develop a meaningful business continuity plan and also to involve the Department in testing these business continuity plans. These business continuity plans that you write and put on the shelf and hope to God that you never have to use it someday are pretty meaningless. What you really need to have is a living document, one that's exercised frequently and that the people who are going to have to rely upon it are comfortable with and that has yet to happen and I think that's a very important role for the Department in the future.

Marie Royce: I wanted to make one comment just to say that you are saying exactly what I was just going to say, before the panel I was doing research and about the national exercises for homeland security and the group called Top Off which is of top officials and what they were saying was the small business community which represents 85% of the business in the United States were left out of the exercise. So before I even came here today I actually touched a couple of small businesses, I went to the dry cleaners, you know I did my errands along the way, and so again that is a big missing component.

Jeff Gaynor: Let me throw in an idea or two. Beware of large companies' continuity plans, they tend to be created and exercised in a stove pipe. In fact, these large companies operate in communities and it's interesting when you drill down and you look at the service level

agreement it's where everybody's going. Because the companies don't necessarily talk to one another you could have a whole bunch of companies showing up at a place at the same time.

Liz DiGregorio: And it's also, 'Do I meet the Sarbanes-Oxley Act' and then that's it. They really look at that narrow tunnel rather than saying do we really have a business continuity plan that includes continuity of bringing our workforce back very quickly.

Bob Kelly: We've got a question all the way in the back.

(Audience Question) Name Unknown– American Society of Civil Engineers: I had a question we were talking about those pilot programs, those successful pilot programs in Austin, Texas (unintelligible)… so you have really successful communities, New York, other pilot programs like that, is there a way to share those success stories? You were talking about a public clearinghouse to create a clearinghouse like that so is there a way to share those, so almost like a mentoring program for communities who are more resilient for those who are less resilient?

Liz DiGregorio: Yes there is and if you go to the Citizen Corps website you'll find the success stories, but again that is part of the problem. You know you're inundated by websites, you're inundated by where to go, you kind of need to know where to look, you have to put on your miners hat and have to dig through all of the information. That is why I was saying, if there were to be one easy go-to place for the American public to take a look at the best stories, and take a look at some of the metrics, and actually how to go about doing community resiliency and have it centrally located -- a one stop shop would be great. But right now you have to know where to look and I know you can go through the Citizen Corps website and find quite a few of the good stories of communities. There is actually a section called "good stories."

(Audience Follow up): And just another comment on that is the American Society of Civil Engineers and the International Association of Emergency Managers are trying to forge our gap of how we can help one another on the local level so that is another way to engage those types of professionals. Each of our associations has chapters who can get involved in community preparedness…. (unintelligible).

Bob Kelly: One more question, Lew.

 (Audience Question) **Lewis Perelman**- Sr. Research Fellow, RSI: I wanted to pick up on Mike's observation about baking it in as oppose to adding it on later and the context of the whole conversation which is about metrics and measuring resilience, of (unintelligible) imposing incentives or requirements to get people to do something about it, this is not operating in a vacuum, there are organizations which are creating metrics and imposing them through various sorts of regulations and sanctions; one of them is right at the other end of this street called the U.S. Green Building Council. They have very detailed, extensive measuring methods called, LEED certification process which gives points for all sorts of features in buildings and structures and incentives to get more and more stars, to get silver or gold or platinum, if you add more and more of these features and get points.

The measuring process alone, just to measure your buildings to apply to get the gold star can cost a hundred thousand dollars or more to the developer or builder. If you look at their measuring system there are no points for survivability, security and safety, but there's a finite budget for building things; so all the money being spent to make things greener is often coming at the expense of making them more safe and survivable. We don't have any legislative or any programmatic or even lobbying effort which is addressing this reality … that these tradeoffs are being imposed very day.

Bob Kelly: You want to put that in a form of a question?

Lewis Perelman: There are hundreds, getting to Liz's point, of towns and counties and cities that have signed so-called climate protection sustainability agreements that are now translating these requirements, USGBC is a voluntary association it's not a government agency, created these standards, but now governments are imposing them through regulation including federal agencies so that builders and developers have to satisfy these requirements, but they're not similarly incentivized -- a lousy Washington term -- to address the kinds of concerns you have all talked about, much less resolving the tradeoffs. What do you all think of that?

Sen. Balboni: The irony of course is that I sit on the review commission for Homeland Security [Quadrennial Review Advisory Committee], which we've got to decide if it is it just a book club or if it is going to do something, we haven't found that out yet, But Joel Bagnal, the former Deputy for Counterterrorism for the White House under Fran Townsend, put out the number of $2.7 billion of unspent Homeland Security dollars out on the street. This is not, you know, in a bill, not in an agency, it's actually on the street and I think in there, if that, combined with the stimulus program, if you got into a direction and you said 'no, no you can't rebuild your buildings to survivability standards, but when you do enhancements or when you do new construction, this should be an element, and if it is we will provide incentive of x dollars that goes right there because there is money there.

But, of course the biggest thing is well, what does that trade off? And again resiliency means many things to many people. What I do think the federal government needs to do is send a very clear direction that this is something it cares about, something that it's willing to support and provide dollars toward or at least take the current dollars out there and say you know it should be directed in this area and have that mature adult conversation that's been lacking -- here are the things that really matter if they go boom, let's protect these things first through resiliency. We haven't had that because of course in that discussion there are winners and there are losers and nobody likes to do that.

Bob Kelly: Thank you and I'd like to thank the panel for their excellent remarks today. I would also like to remind the audience that the Reform Institute is sponsoring a national energy symposium -- it's going to be held on the 21st of April and it's going to be held at the Hyatt Capitol Hill which is right around the corner here, I'm sure many of you are familiar with that venue. I'd like to thank all of you for coming today and I believe our speakers will be hanging around for a little while so if you have some individual questions you can ask them one on one. Thank you very much.

(END)